ISDN BUSINESS COMMUNICATION SYSTEM

dX-Z 96

Software Manual

Issue 2-0 (April, 1999)

Nitsuko

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RECORD OF REVISION

Revision No.	Date	Description of Change
DX2E-001	Mar. '95	Initial Release
2 - 0	Apr. '99	Renewal Issue for "2.2A" version

Introduction

Before Reading This Section

This section provides detailed information on the system's features. If you don't know what the various features are, review the Table of Contents for this section and the manual's Index. After reviewing, turn back to this section for the specifics.

Using This Section

The features in this section are in alphabetical order, like a dictionary. This section subdivides each feature definition into heading as follows:

Description tells what the feature is and describes its benefits. Along with the Description are the Conditions and the Default Setting. Conditions provide the feature's operational limits (if any). Default Setting outlines how the feature works with the default programming. When initially installed, the system uses the default setting.

Programming explains the system programming that lets you customize the feature.

Most of customization cases to the features, they require programming. If you decide to customize the features, refer to “Programming” flow.

Related Features presents the feature interaction.

Operation consists of instructions on how to use each feature.

--Read These Notes--

Programmable Keys...

When reading an instruction using programmable keys, you will see a notation similar to (PGM 1006 or SC 851: 1050). This means that the key requires function code 1050, and you can program this code through Program 1006 or by dialing Service Code 851.

Refer to the “Programmable function key” feature for more information.

Using Handsfree...

The manual assumes each extension has Automatic Handsfree. This lets a user just press a trunk line key or CL key to answer or place a call. For extensions without Automatic Handsfree, the user must:

- Lift the handset or press SPK, for Intercom dial tone.
- Lift the handset or press SPK, then press a trunk line key for Trunk dial tone.

Introduction (Cont'd)

Table 1-1, Service Codes by Number (Page 1 of 6)

Service Code...	When you are...	For this feature...	Also see Function Key...
#*#*( )	Entering the system Programming mode	System Programming Password Protection	—
9( )	Placing a call using Trunk Line Group Routing	Trunk Outgoing Call	1011
700( )	Change toll restriction class of extension by Dial Block	Dial Block	—
701( )	Set Dial Block by Supervisor	Dial Block by Supervisor	—
711( )	Listen General Message (VAU)	General Message Play Back	—
712( )	Record and Erase General Message (VAU)	General Message Erase and Record	—
713( )	Set Call Forward with personal greeting (VAU)	Call Forward with Personal Greeting	—
714( )	Leave telephone number from DUD/DISA caller (VAU)	Leave Telephone Number from DUD/DISA	—
715( )	Pick up extension’s ring	Direct Extension Pickup	—
716( )	Control VAU Message (VAU)	Operation for VAU Message	—
717( )	Access voice mail (NVM-series)	Voice Mail Access	—
720( )	Canceling of several features	** Note 1*	—
721( )	Output accumulated data per extension base (SMDR)	Printout Accumulated Extension Data	—
722( )	Output accumulated data per station group base(SMDR)	Printout Accumulated STG Data	—
723( )	Output accumulated data per account code base (SMDR)	Printout Accumulated Account Code Data	—
724( )	Forced disconnecting of busy trunk	Forced Trunk Disconnect	—
725( )	Answer machine emulation (NVM-series)	Answer Machine Emulation	—
726( )	Set Message Waiting 2	Set MW2	—
743( )	Check the number left (VAU)	Check Leave Number	—

Note 1: Alarm Clock, Call Forward, DND, Headset Operation, Message Waiting, Automatic Repeat Dialing and Text Message.

Table 1-1, Service Codes by Number (Page 2 of 6)

Service Code...	When you are...	For this feature...	Also see Function Key...
745( )	Disabling for trouble trunk	Trunk Port Disable	—
746( )	Edit Caller-ID table data	Edit Caller-ID Table Data	—
747( )	Indicate Caller-ID table	Indicate Caller-ID Table	1084
748( )	Check missed (abandoned) call	Check Missed Call	1085
750( )	Withdraw from Station Group	STG Withdraw	1074
751( )	Make Combine paging to external zone and internal zone	Paging Combine	—
752( )	Enter personal code	Personal Code	—
754( )	Set conversation record from SLT (NVM-series)	Conversation Record from SLT	—
761( )	Set personal speed dial	Personal Speed Dial	—
763( )	Set Walking Toll Restriction	Walking Toll Restriction	—
770( )	Set SLT room monitor	SLT Room Monitor	—
771( )	Display the charged cost by Supervisor phone	Charge Cost Display	—
772( )	Answer the specific trunk line	Specified Trunk Answer	—
773( )	Set station park hold	Station Park Hold	—
780( )	Set the mode for all-member to ring in station group	STG All Ring Mode	—
800( )	Extension names program	Name Storing	—
801( )	Making an Internal Page	Paging, Internal	1006
802( )	Door-phone access	Door phone	—
803( ) + zone 803( ) + 0	External group (zone) paging External all paging	Paging, External	1004 1005
804( ) + 0-9 00-16	Placing an outside call over a Trunk Line group	Trunk Outgoing Call	1012 + 0-9 00-16
805( )	Placing a call over a specific Trunk Line access	Trunk Outgoing Call	0001-0128
806( )	Flashing to Trunk Line from a S.L.T	Flash	—
807( )	Activating Do Not Disturb and Call Forward (Bypass call)	DND/FWD override (Bypass call)	1022

Introduction (Cont'd)

Table 1-1, Service Codes by Number (Page 3 of 6)

Service Code...	When you are...	For this feature...	Also see Function Key...
808( )	Step Calling through a Department Group	Group Hunt	1021
809( )	Sending voice over to busy extension or send off-hook signal	Voice Over / Intercom Off-hook Signaling	1018
810( )	Break in on an extensions call	Break in	1019
811( )	Listening to the incoming ring choices	Check of ringing tone	—
812( )	Switching the way your extension signals the extension you are calling	Intercom	—
813( ) + bin (000-199)	Dialing a Common Abbreviated Dialing number	Abbreviated Dialing	1037
814( ) + bin (00-19)	Dialing a Group Abbreviated Dialing number	Abbreviated Dialing	1038
815( )	Saving a number or dialing a saved number	Saved number redial	1014
816( )	Activating Last Number Dialing	Last Number Dialing	—
817( )	Setting modem outgoing parameters	—	—
818( ) + P + 0 818( ) + P + 1 818( ) + P + 2 818( ) + P + 3	Activating Day Mode Activating Night Mode Activating Midnight Mode Activating Rest Mode	Night Service	1039 + P 1040 + P 1041 + P 1042 + P
820( )	Switching Trunk Line incoming ring tones	Selectable Ring Tones	—
821( )	Incoming intercom called mode setting to voice announce	Intercom Talkback/ Forced Intercom Ringing	—
823( )	Incoming intercom called mode setting to signal call	Intercom Talkback/ Forced Intercom Ringing	—
824( )	Enabling/disabling Key Touch Tone	Key Touch Tone	—
825( )	Turning Background Music on and off	Background Music	—
826( )	Activating Conference from a S.L.T	Conference	1016
827( ) + 1 or 2 + time	Setting or cancel an alarm	External Alarm Sensor	—

Note: "P" is user password.

Table 1-1, Service Codes by Number (Page 4 of 6)

Service Code...	When you are...	For this feature...	Also see Function Key...
828( ) + P	Setting the system Time and Date	Time and Date	—
831( ) + 1-8	Parking a call in a system Park orbit (1-8)	Park Hold	1033
834( )	Switching from headset to handset mode and visa versa	Headset Operation	1028
836( )	Activating Text Message	Text Message	1027
840( )	Deleting the system alarm message		
841( )	Leaving a Message Waiting	Message Waiting	1023
842( )	Activating Call Forward-dual ring	Call Forward	1000
843( )	Activating transfer Busy	Call Forward	1002
845( )	Activating Unanswered call transfer	Call Forward	1003
846( )	Activating Follow Me at the destination extension	Follow Me	1001
847( )	Activating Do Not Disturb	Do Not Disturb	—
848( )	Activating Call forward	Call Forward	1055
849( )	Enabled on hook when holding	Hold	
850( )	Camping On or leaving a Callback for a busy extension or Trunk Line	Camp On/Callback - Extension - Trunk	1020
851( )	Switching the function of a programmable key	Programmable Function Key	—
852( )	Accessing One-Touch Key Serial Operation store and delete functions	One-Touch Serial Operation	1034
853( )	Storing Common Abbreviated Dialing numbers	Abbreviated Dialing	—
854( )	Storing Group Abbreviated Dialing numbers	Abbreviated Dialing	—
855( )	Programming a One-Touch Key	One-Touch Dialing	—
856( )	Answering a call ringing specified extension in pickup group	Call Pickup	—
859( )	Answer on hook when holding	Hold	
861( ) + 1-8	Pickup a call parked in a system Park orbit (1-8)	Park Hold	1033
862( )	Picking up a call from Group Hold	Hold	—

Note: "P" is user password.

Table 1-1, Service Codes by Number (Page 5 of 6)

Service Code...	When you are...	For this feature...	Also see Function Key...
863( )	Joining a Meet Me Page on an Internal Paging Group (if your extension is in the group called)	Meet Me Paging	—
864( )	Joining a Meet Me Page if your extension is not in the group paged	Meet Me Paging	—
865( )	Joining an External Paging Group	Meet Me Paging	—
867( )	Answering a call ringing another phone in another pickup group	Call Pickup	1007
868( )	Answering a call ringing a phone in another pickup group	Call Pickup	1009
869( )	Answering a call ringing a phone in another pickup group (if you don't know the group's number)	Call Pickup	1008
870( )	Canceling a Camp On/Callback request	Camp On/Callback - Extension - Trunk	—
871( )	Canceling Message Waiting you have left at a specific extension	Message Waiting	—
872( )	Answering for non ringing Trunk line by SLT	—	—
873( )	Canceling all Message Waiting you have left at other extensions	Message Waiting	—
875( ) + P	Temporality overriding an extension's Toll Restriction	Toll Restriction Override	—
876( )	Canceling number saved by Last Number Dialing	Last Number Dialing	—
880( )	Initializing the DCI	Data Communications Interface	—

Note: "P" is user password.

Table 1-1, Service Codes by Number (Page 6 of 6)

Service Code...	When you are...	For this feature...	Also see Function Key...
881( ) + P	Switching the Music on Hold Tone	Music on Hold	—
883( )	Enabling the DCI auto answer mode	Data Communications Interface	—
884( )	Disconnecting an active data call	Data Communications Interface	—
885( )	Canceling the number saved by Saved Number Redial	Save Number Redial	—
891( )	Account Code	Account Code	1054
892( )	Forcing Override with voice-announce to your phone	Voice Over	—
893( )	Forcing Override to ring your phone	Intercom Off-hook Signaling	—
894( )	Answering a Call waiting calling	Camp On/Callback - Extension	
899( )	Testing the operation of S.L.T		—
—	Saving and erasing a number or dialing a memo number	Memo dialing	1015
—	Privacy release of talking Trunk line	Privacy Release (Meet-me conference)	1017
—	Setting the monitored and monitoring extension number for Room monitor	Room monitor	1025
—	Activating and off for handset transmission	—	1026
—	Answering and disconnecting for data call	Data	1029
—	Buzzer the secretary extension	Secretary call (Buzzer)	1031
—	Activating Executive's call forward	Secretary call pickup	1032
—	Activating series call	Series call	1035
—	Incoming and answering to Virtual extension call	Virtual extension	1036
—	Holding and picking up a call	Hold	1043
—	Holding and picking up a call in an exclusive hold	Exclusive hold	1044
—	Calling programmed extension	DSS key	1058

Note: "P" is user password.

For function key number 1059-1065, 1067-1071, 1073, 1082, 1083 and 1086 those which don't have "Service Code", refer to Table 1-4 (Page 11 of 13).

Introduction (Cont'd)

Table I-2, System Number Plan (Page 1 of 2)

Trunk Port Numbers		01-52
Trunk Group Numbers		01-16
Telephone Extension Port numbers		01-72
Telephone Extension Number Range	(Default)	100-699
Virtual Extension Port Numbers	(Default)	73-96
Virtual Extension Number Range	(Default)	100-699
Operator Access Number	(Default)	0
DCI Port Number		01-72
DCI Extension Number Range	(Default)	100-699
DCI Pooling Group numbers		1-8
DCI Pooling Group Extension Number Range	(Default)	100-699
ACI Port Numbers		1-6
ACI Extension Number Range	(Default)	100-699
Department/Extension Group Numbers		1-8
Department/Extension Group Extension Number Range	(Default)	100-699
Ring Group Numbers		01-16
Doorphone Numbers		1-8
Call Pickup Group Numbers		1-8
Internal Page Group Numbers		1-8
External Page Group Numbers		1-8
Park Group Numbers		1-8
User Password for Setting Time and Date	(Default)	0000
User Password for Setting Music on Hold tone	(Default)	0000
User Password for Setting Night Service	(Default)	0000

Introduction (Cont'd)

Table 1-2, System Number Plan (Page 2 of 2)

Programming Passwords

Level 2 (IN) 12345678
Level 3 (SA) 0000
Level 4 (SB) 9999

Count toward total number of allowed hardware ports (not to exceed 400).
These devices share the same pool of extension numbers. Extension numbers cannot overlap.

Extension numbers can be three or four digits long. See Flexible System Numbering.

Table 1-3, System Tones (Page 1 of 2)

Tone	Repetitions	Frequency	Level	Pattern
Extension Dial Tone	Continues	400 Hz	–13 dB	250 mS Off – 250 mS On
Special Dial Tone	Continues	400 Hz	–13 dB	10 mS Off – 90 mS On
Transfer Dial Tone	Continues	400 Hz	–13 dB	120 mS Off – 120 mS On
Busy Tone, Busy Tone (terminated), Congestion Tone	Continues	400 Hz	–13 dB	500 mS Off – 500 mS On
DND Busy Tone	Continues	400 Hz	–13 dB	200 mS Off, 200 mS On
Warning Tone	Continues	400 Hz	–13 dB	100 mS Off, 100 mS On
Confirmation Tone	1	800 Hz	–13 dB	100 mS Off, 100 mS On
Ringback Tone	Continues	580 Hz	–19 dB	1 Sec On, 2 Sec Off
Override Tone	1	800 Hz	–13 dB	100 mS Off, 100 mS On
Lock-out Tone	Continues	800 Hz	–13 dB	100 mS Off, 100 mS On
Clock Alarm Tone	Continues	800 Hz	–13 dB	100 mS On, 100 mS Off, 100 mS On, 700 mS Off
Doorphone Ring 1	3	Variable: 660 Hz at –10 dB for 200 mS, 660 Hz at –16 dB for 200 mS, 520 Hz at –10 dB for 300 mS, 520 Hz at –16 dB for 400 mS, 520 Hz at –22 dB for 600 mS, 500 mS quiet		
Doorphone Ring 2	3	Variable: 880 Hz at –10 dB for 200 mS, 880 Hz at –16 dB for 200 mS, 700 Hz at –10 dB for 300 mS, 700 Hz at –16 dB for 400 mS, 700 Hz at –22 dB for 600 mS, 500 mS quiet		
Doorphone Ring 3	3	Variable: 1050 Hz at –10 dB for 200 mS, 1050 Hz at –16 dB for 200 mS, 700 Hz at –10 dB for 300 mS, 700 Hz at –16 dB for 400 mS, 700 Hz at –22 dB for 600 mS, 500 mS quiet		
Service Set Tone, Service Clear Tone, Speaker Monitor Tone, Door Relay Tone, Door Call Tone, Splash Tone 1	1	800 Hz	–13 dB	100 mS Off, 100 mS On
Talk Back Tone, Paging Tone, Splash Tone 2	2	800 Hz	–13 dB	100 mS Off, 100 mS On
Splash Tone 3	3	800 Hz	–13 dB	100 mS Off, 100 mS On
1 Second Signal Tone	1	800 Hz	–13 dB	1 Second On

Table 1-3, System Tones (Page 2 of 2)

Tone	Repetitions	Frequency	Level	Pattern
Sensor Alarm Tone 1	Continues	800 Hz	−13 dB	200 mS On, 200 mS Off
Sensor Alarm Tone 2	Continues	800 Hz	−13 dB	500 mS On, 500 mS Off
Sensor Alarm Tone 3	Continues	800 Hz	−13 dB	700 mS On, 700 mS Off
Sensor Alarm Tone 4	Continues	800 Hz	−13 dB	1 Sec On, 1 Sec Off
Transfer and Call Waiting Tone	1	800 Hz	−13 dB	100 mS On
Intrusion Tone	1	520 Hz	−13 dB	800 mS On
DUD, DISA Dial Tone	Continues	Variable: 400 Hz at −16 dB for 100 mS, then 520 Hz at −16 dB for 100 mS		
Key Touch Tone	1	438 Hz	—	50 mS
Trunk Line Ring Tone Range 1	Combination of... High: 1032 Hz + 865 Hz + 16 Hz Mid: 582 Hz + 416 Hz + 16 Hz Low: 421 Hz + 360 Hz + 16 Hz			See Table 1-4
Trunk Line Ring Tone Range 2	Combination of... High: 2667 Hz + 2000 Hz + 8 Hz Mid: 2000 Hz + 1600 Hz + 8 Hz Low: 1455 Hz + 1185 Hz + 8 Hz			See Table 1-4
Trunk Line Ring Tone Range 3	Combination of.. High: 1778 Hz + 1333 Hz + 24 Hz Mid: 889 Hz +711 Hz + 24 Hz Low: 438 Hz + 360 Hz + 24 Hz			See Table 1-4
Trunk Line Ring Tone Range 4	Combination of... High: 2462 Hz + 2286 Hz + 25 Hz Mid: 2000 Hz + 1882 Hz + 25 Hz Low: 1524 Hz + 1455 Hz + 25 Hz			See Table 1-4
Incoming Ring Tone Range	Combination of... High: 800 Hz + 1032 Hz + 12 Hz Mid: 604 Hz + 865 Hz + 12 Hz Low: 400 Hz + 640 Hz + 12 Hz			See Table 1-4
Alarm Sensor Ring Tone Range	Combination of... High: 880 Hz + 800 Hz + 1000 Hz Mid: 800 Hz + 800 Hz + 1000 Hz Low: 800 Hz + 800 Hz + 1000 Hz			See Table 1-4

Introduction (Cont'd)

Table 1-4, Digital Key Telephone Displays (Page 1 of 13)

With this feature	You'll see this display...	When...
(Idle telephone)	Date and Time Ext No. (ext name)	Your extension is idle and on hook
(Idle telephone)	CHECK	You press CHECK to check a function
(Idle telephone)	CHECK(ext No.) (ext name) PORT nnn GP-nn	You press CHECK and CL 1 to check extension information, where (ext) is the extension number, (ext name) is the extension name, PORT nn is the port number and GP-nn is the extension group
Abbreviated Dialing	SET ABB: COMMON	You dial Service Code 853 to store a Common Abbreviated Dialing number
Abbreviated Dialing	SET ABB: GROUP	You dial Service Code 854 to store a Group Abbreviated Dialing number
Abbreviated Dialing	ABB (bin) (digits)	You are storing Abbreviated Dialing numbers, where (bin) is the bin number and (digits) is the current stored number (if any)
Abbreviated Dialing	Time and Date ABB:COMMON	You press CL and DC to dial a Common Abbreviated Dialing number
Abbreviated Dialing	Time and Date ABB:GROUP	You press CL and DC to dial a Group Abbreviated Dialing number
Abbreviated Dialing	(trk name) HH:MM:SS (digits) (bin name)	You place a call using Abbreviated Dialing
Abbreviated Dialing	PREVIEW ABB:COMMON or GROUP	You press DC to preview an Abbreviated Dialing entry, where COMMON or GROUP displays depending on the DC key setting
Abbreviated Dialing	PREVIEW (bin name) ABB: (bin) (digits)	You press DC and select a bin before outgoing Abbreviated Dialing number, where (bin name) is the programmed name, (bin) is the bin number and (digits) is the stored number

Introduction (Cont'd)

Table 1-4, Digital Key Telephone Displays (Page 2 of 13)

With this feature	You'll see this display...	When...
Abbreviated Dialing	CHECK ABB(xxxx)	You press CHECK and DC to check a stored Abbreviated Dialing bin, where (bin name) is the bin name, (xxxx) is GROUP or COMMON depending on the DC key setup
Abbreviated Dialing	CHECK (name) ABB(xxxx) (digits)	You press CHECK, DC and dial a bin number to check an Abbreviated Dialing entry, where (name) is the bin name, (xxxx) is the bin type/number and (digits) is the stored number
Alarm Clock	Date and Time Ext No. ALARM n	Your extension is idle, after setting Alarm n (1 or 2)
Alarm Clock	SET n ALARM HH:MM am or pm	You set an alarm time but do not hang up
Alarm Clock	SET n ALARM CANCEL	You dial 827, 1 or 2 to select an alarm type then 9999 to cancel
Alarm Clock	SET ALARM 1: ALARM 1 2: ALARM 2	You dial 827 to set an alarm
Alarm Clock	ALARM n HH:MM am or pm (digits)	You press CHECK, dial 827, then 1 or 2 to check your alarm setting
Background Music	Time and Date B.G.M. ON	You dial Service Code 825 to turn Background Music on
Background Music	Time and Date B.G.M. OFF	You dial Service Code 825 to turn Background Music off
Break In	BREAK IN (ext name) (ext name)	You have Break-In (speech mode) on a co-worker's Intercom call
Break In	(trk name) BREAK IN (ext name)	You have Break-In (speech mode) on a co-worker's Outside call
Break In	MONITOR (ext name) (ext name)	You have Break-In (monitor mode) on a co-worker's Intercom call
Break In	(trk name) MONITOR (ext name)	You have Break-In (monitor mode) on a co-worker's Outside call

Introduction (Cont'd)

Table 1-4, Digital Key Telephone Displays (Page 3 of 13)

With this feature	You'll see this display...	When...
Call Forward	Time and Date FWD (ext name)	Your extension is idle and you have previously activated Call Forward (Service Code 848). Name shows destination extension.
Call Forward	Time and Date FWD-DUAL (name)	Your extension is idle and you have previously activated Call Forward dual Ring (Service Code 842). Name shows destination extension.
Call Forward	Time and Date TRNS-NA (ext name)	Your extension is idle and you have previously activated Unanswered Call Transfer (Service Code 845). Name shows destination extension.
Call Forward	Time and Date TRNS-BUSY (ext name)	Your extension is idle and you have previously activated Busy Transfer (Service Code 843). Name shows destination extension.
Call Forward	SET DUAL RING 1: SET 0: CANCEL	You dial Service Code 842 to enable Call Forward Dual Ringing
Call Forward	SET BUSY TRANSFER 1: SET 0: CANCEL	You dial Service Code 842 to enable Busy Transfer
Call Forward	SET NO ANS TRANSFER 1: SET 0: CANCEL	You dial Service Code 845 to enable Unanswered Call Transfer
Call Forward	SET FORWARD 1: SET 0: CANCEL	You dial Service Code 848 to enable Call Forward
Call Forward	ICM DIAL	You dial 1 to set Call Forward. System asks you to enter the destination extension number.
Call Forward	CANCEL	You dial a Call Forward Service Code and 0 to cancel Call Forward
Call Pickup	Time and Date CALL P/U (ext name)	You have intercepted a call using Call Pickup
Call Pickup	(trk name) (HH:MM:SS) CALL P/U (ext name)	You use Call Pickup to intercept a call ringing a phone in a pickup group
Call Timer	(trk name) HH:MM:SS (digits)	You place an outside call and the Call Timer starts (HH:MM)

Introduction (Cont'd)

Table 1-4, Digital Key Telephone Displays (Page 4 of 13)

With this feature	You'll see this display...	When...
Camp On/Callback - Extension	Time and Date CAMP-ON (ext name)	You have 850 to camp-on to a busy extension. Name shows the destination extension.
Camp On/Callback	Time and date CAMP CANCEL	You have dialed 870 to cancel a Camp- On or Callback
Camp On/Callback	Time and Date CALL-BACK (ext name)	Extension at which you left a Callback (shown in the name field) is calling you back
Camp on/Callback Trunk Line	(trk name) CALL BACK	The trunk you queued for is calling you back
Camp-On Trunk line	Time and Date CAMP LINE	You have queued for a busy trunk
Conference	CONF ICM DIAL	You press the Conference key to initiate a Conference
Conference	(name) CONF (name) (name)	You have set up a Conference, where (name) is either an extension or trunk name
Dial Block	Time and Date DIAL BLOCK	You blocking dial for your extension
Dial Number Preview	PREVIEW DIAL DIAL (digits)	You use Preview Dial to preview your call before dialing it out
Direct Station Selection (DSS) Console	Time and Date OFF DUTY	You press ALT to activate Alternate Answering
Do Not Disturb	Time and Date DND INTERCOM	You press DND and dial 2 to activate DND for Intercom and transferred trunks
Do Not Disturb	Time and Date DND ALL	You press DND and dial 3 to activate DND for all calls
Do Not Disturb	Time and Date DND TRANSFER	You press DND and dial 4 to activate DND for incoming Call Forwards
Do Not Disturb	SET DND	You press DND to start DND activation procedure
Do Not Disturb	SET DND CANCEL	You press DND and dial 0 to cancel Do Not Disturb
Do Not Disturb	Time and Date DND EXTERNAL	You press DND and dial 1 to activate DND for incoming trunk calls

Introduction (Cont'd)

Table 1-4, Digital Key Telephone Displays (Page 5 of 13)

With this feature	You'll see this display...	When...
Doorphone	Time and Date CALL <<< DOOR-n	You are receiving rings from Doorphone n.
Doorphone	Time and Date TALKING TO DOOR-n	You dial Service Code 802 and call a Doorphone, where n is the Doorphone number
External Alarm	SET n ALARM DIAL TIME	You dial 827 to set an alarm, then dial 1 (to set Alarm 1) or 2 (to set Alarm 2)
Trunk Incoming Call	(trk name) RINGING	A trunk call is ringing your extension
Trunk Incoming Call	(trk name) HH:MM:SS ANSWERED	You have answered an incoming trunk call (where nn:nn indicates the Call Timer)
Trunk Outgoing Call	(trk name) BUSY	You have tried to place a call over a busy trunk
Trunk Outgoing Call	(trk name)	You have seized a trunk for an outside call
Follow Me	SET FOLLOW ME 1: SET 0: CANCEL	You dial Service Code 846 to dial Follow Me
Follow Me	SET FOLLOW ME ICM DIAL	You dial 1 to set Follow Me (after dialing Service Code 846)
Follow Me	CANCEL FOLLOW ME ICM DIAL 0:ALL CLR	You dial 0 to cancel Follow Me (after dialing Service Code 846)
Follow Me	SET FOLLOW ME CANCEL	You have cancelled Follow Me
Follow Me	SET FOLLOW ME FLW ME << (ext name)	You enable Follow Me, where (ext name) is extension you want to intercept
Follow Me	Time and Date FLW ME >> (ext name)	An extension is having its calls intercepted by Follow Me, where (ext name) is intercepting extension
Headset Operation	Time and Date SET HEADSET MODE	You dial Service Code 834 to enable the Headset mode
Headset Operation	Time and Date CANCEL HEADSET MODE	You dial Service Code 834 to disable the Headset mode

Introduction (Cont'd)

Table 1-4, Digital Key Telephone Displays (Page 6 of 13)

With this feature	You'll see this display...	When...
Hold	Time and Date HOLD (ext name)	You place an Intercom call on Hold, where (ext name) is the name of the extension you placed on Hold
Hold	Time and Date GROUP HOLD (ext name)	You dial Service Code 832 to place an Intercom call on Group Hold, where (ext name) is the name of your Intercom caller
Hold	(trk name) GROUP HOLD	You dial Service Code 832 to place your trunk call on Group Hold
Hold	Time and Date HOLD (ext name)	You place an Intercom call on Hold, where (ext name) is the name of your Intercom caller
Hold	(ext name) HOLD RECALL	An Intercom call you left on Hold too long recalls your extension, where (ext name) is the call you left on Hold
Hold	(trk name) HOLD RECALL	A call you have left on Hold too long is recalling your extension
Hold	(trk name) HOLD	You place a call on Hold
Intercom	Time and Date TALKING TO (ext name)	Your extension is busy on an Intercom call
Intercom	Time and Date DND (ext name)	You have placed an Intercom call to an extension in DND
Intercom	Time and Date CALLING (ext name)	You have placed an Intercom call that has either voice-announced or is ringing (but the user has not lifted the handset)
Intercom	Time and Date CALL FROM (name)	An Intercom call has voice-announced or is ringing your extension
Intercom	Time and Date HANG UP	Your Intercom caller has hung up – but you are still off-hook
Intercom	Time and Date BUSY (ext name)	You have placed an Intercom call to a busy extension

Introduction (Cont'd)

Table 1-4, Digital Key Telephone Displays (Page 7 of 13)

With this feature	You'll see this display...	When...
Intercom Abandoned Call Display	CHECK SET CALL ABAN (nnn) (ext name)	You press CHECK and CL2 to check the Intercom Abandoned Call Display, where (nnn) is the abandoned extension and (ext name) is that extension's name
Key Touch Tone	Time and Date SET KEY TOUCH TN	You dial Service Code 824 to enable Key Touch Tone
Key Touch Tone	Time and Date CANCEL KEY TOUCH TN	You dial Service Code 824 to enable Key Touch Tone
Last Number Dialing	(trk name) REDIAL (digits)	Last Number Dialing is outdialing the last number you dialed
Last Number Dialing	CHECK REDIAL (digits)	You press CHECK and LND to check the stored Last Number Dialing entry, where (digits) is the stored entry
Last Number Dialing	PREVIEW REDIAL (digits)	You press LND to check your stored Last Number Dialing entry
Last Number Dialing	Time and Day CLEAR REDIAL	You dial Service Code 876 to clear the Last Number Dialing entry
Memo Dial	MEMO DIAL (digits)	You press the Memo Dial key to check the Memo Dial entry before dialing it out
Memo Dial	CHECK LINE KEY (nn) MEMO DIAL	You press CHECK and the Memo Dial key
Memo Dial	MEMO DIAL (digits)	You press the Memo Dial key while on hook to check the stored number
Message Waiting	Time and Date MSG >>> (ext name)	You dialed Service Code 841 and left a message at the extension shown in (ext name)
Message Waiting	Time and Date CANCEL MESSAGE	You dialed 871 to cancel a message you left at another extension
Music on Hold	SET HOLD TONE 0: TN-0 1: TN-1 2: TN-2	You dial Service Code 881 and the password (normally 0000) to set the MOH tone
Music on Hold	SET HOLD TONE SET nTONE	You set the MOH tone, where n is the MOH tone number (0-2)
Name Storing	ENTER NAME	You dial Service Code 800 to program your name

Table 1-4, Digital Key Telephone Displays (Page 8 of 13)

With this feature	You'll see this display...	When...
Voice Over	Time and Date 2nd VOICE CALL	You dial Service Code 892 to have incoming override voice-announce
Intercom Off-hook Signaling	Time and Date 2nd SIGNALING	You dial Service Code 893 to have incoming override ring
One-Touch Dialing	(trk name) ONE TOUCHnn (digits)	You press a One Touch Key after seizing a trunk to outdial the number stored under the key, where nn is the One-Touch Key number
One-Touch Dialing	KEY PROG ONE TOUCH	You dial Service Code 855 to program a One-Touch key
One-Touch Dialing	KEY nn (name) (digits)	You program a One-Touch Key by dialing Service Code 855 and pressing the One-Touch Key, where (digits) displays current programming
One-Touch Dialing	CHECK DSSnn (digits)	You press CHECK and a One Touch key to check the stored function, where nn is the key number and (digits) is the stored code
One-Touch Serial Operation	KEY PROG FTR KEY	You dial Service Code 852 to program One-Touch Serial Operations
One-Touch Serial Operation	CHECK LINE KEY nn SERIAL(SERIES) OPERATION	You press CHECK and the Serial Operations key, where nn is the programmable key number
One-Touch Serial Operation	CHECK DSSnn FTR KEY (key) (key) etc.	You press a One-Touch key twice to check the stored Serial Operations, where nn is the key number and (key) is the stored key function
One-Touch Serial Operation	Time and Date FTR KEY	You press the Serial Operations key to begin using One-Touch Serial Operations
Paging, External	Time and Date PAGE EXT ALL	You make an All Call External Page
Paging, External	Time and Date PAGE EXT GROUP (nn)	You make an External Zone Page, where (nn) is the external zone number

Table 1-4, Digital Key Telephone Displays (Page 9 of 13)

With this feature	You'll see this display...	When...
Paging, Internal	Time and Date ZONE	You dial 801 to access an Internal Paging Zone or 803 for an External Paging Zone
Paging, Internal	Time and Date GROUP CALL (name)	You press 801 and an internal zone number, where (name) is the Internal Paging Zone name
Paging, Internal	Time and Date GROUP CALL (ext name)	Another extension makes an Internal Page to your paging group, where (ext name) is the name of the extension that initiated the page
Paging, Internal	KEY PROGRAM KEY nn PAGE EXT ALL	You dial Service Code 851 and Programmable Function Key code 1005
Programmable Function Key	KEY PROGRAM KEY (nn) (function)	You press a function key after dialing Service Code 851, where (function) is the currently programmed function, as follows:
	For this key function... You see this display... 1000 .....CALL FORWARD 1001 .....FOLLOW ME 1002 .....TRANSFER-BUSY 1003 .....TRANSFER-NO ANS 1004 .....PAGE GROUP 0 1005 .....PAGE EXT ALL 1006 .....PAGE GROUP ICM 0 1007 .....CALL PICK UP 1008 .....OTHER GROUP PICK UP 1009 .....GROUP PICK UP 1010 .....MEET ME PAGE 1011 .....LINE ACCESS 1012 .....LINE GRP ACCESS 0 1013 .....--Not used -- 1014 .....SAVED NUMBER REDIAL 1015 .....MEMO DIAL 1016 .....CONFERENCE 1017 .....MEET ME CONF	

Table 1-4, Digital Key Telephone Displays (Page 10 of 13)

With this feature	You'll see this display...	When...
Programmable Function Key	For this key function... You see this display... 1018 .....OVERRIDE 1019 .....BREAK IN 1020 .....CAMP ON 1021 .....STEP CALL 1022 .....DND/FWD OVERRIDE 1023 .....MESSAGE WAITING 1024 .....--Not used -- 1025 .....ROOM MONITOR 1026 .....TRANSMIT CUT OFF 1027 .....TEXT MESSAGE 00 1028 .....CHANCE HEADSET MODE 1029 .....DATA 1030 .....DATA PRIVACY 1031 .....BUZZER 1032 .....BOSS CALL FORWARD 1033 .....PARK HOLD 00 1034 .....SERIES OPERATION 1035 .....SERIES CALL 00 1036 .....VIRTUAL EXTENSION 1037 .....ABB COMMON DIAL 1038 .....ABB GROUP DIAL 1039 .....SET DAY 1040 .....SET NIGHT #1 1041 .....SET NIGHT #2 1042 .....SET BREAK 1043 .....HOLD 1044 .....EXCLUSIVE HOLD 1045 .....KEYBOARD DIAL 1046 .....--Not used-- 1047 .....--Not used-- 1048 .....--Not used-- 1049 .....--Not used-- 1050 .....--Not used-- 1051 .....--Not used-- 1052 .....--Not used-- 1053 .....--Not used--	

Table 1-4, Digital Key Telephone Displays (Page 11 of 13)

With this feature	You'll see this display...	When...
Programmable Function Key	For this key function... You see this display... 1054 .....-- Not used-- 1055 .....CALL FORWARD 1056 .....--Not used-- 1057 .....--Not used-- 1058 .....DSS ICM 1059 .....VOICE MAIL MSG 1060 .....CONVERSATION RECORD 1061 .....CONV. RECORDING 1062 .....PAUSE 1063 .....ADDITIONAL RECORDING 1064 .....MAIL BOX 1065 .....RE-RECORDING 1066 .....--Not used-- 1067 .....CANCEL CONV. REC 1068 .....PLAY MESSAGE 1069 .....SKIP MESSAGE 1070 .....IMMEDIAE DELIVERY 1071 .....AUTO ATTENDANT 1072 .....--Not used-- 1073 .....EDIT CALLER I.D. 1074 .....PILOT GROUP WITHDRAW 1075 .....--Not used-- 1076 .....--Not used-- 1077 .....--Not used-- 1078 .....--Not used-- 1079 .....--Not used-- 1080 .....--Not used-- 1081 .....--Not used-- 1082 .....VAU QUEUE MESSAGE 1083 .....INTERNAL LND 1084 .....IND CALLER ID TBL 1085 .....CHECK MISSED CALL 1086 .....24DLS SELECT RANGE	

Table 1-4, Digital Key Telephone Displays (Page 12 of 13)

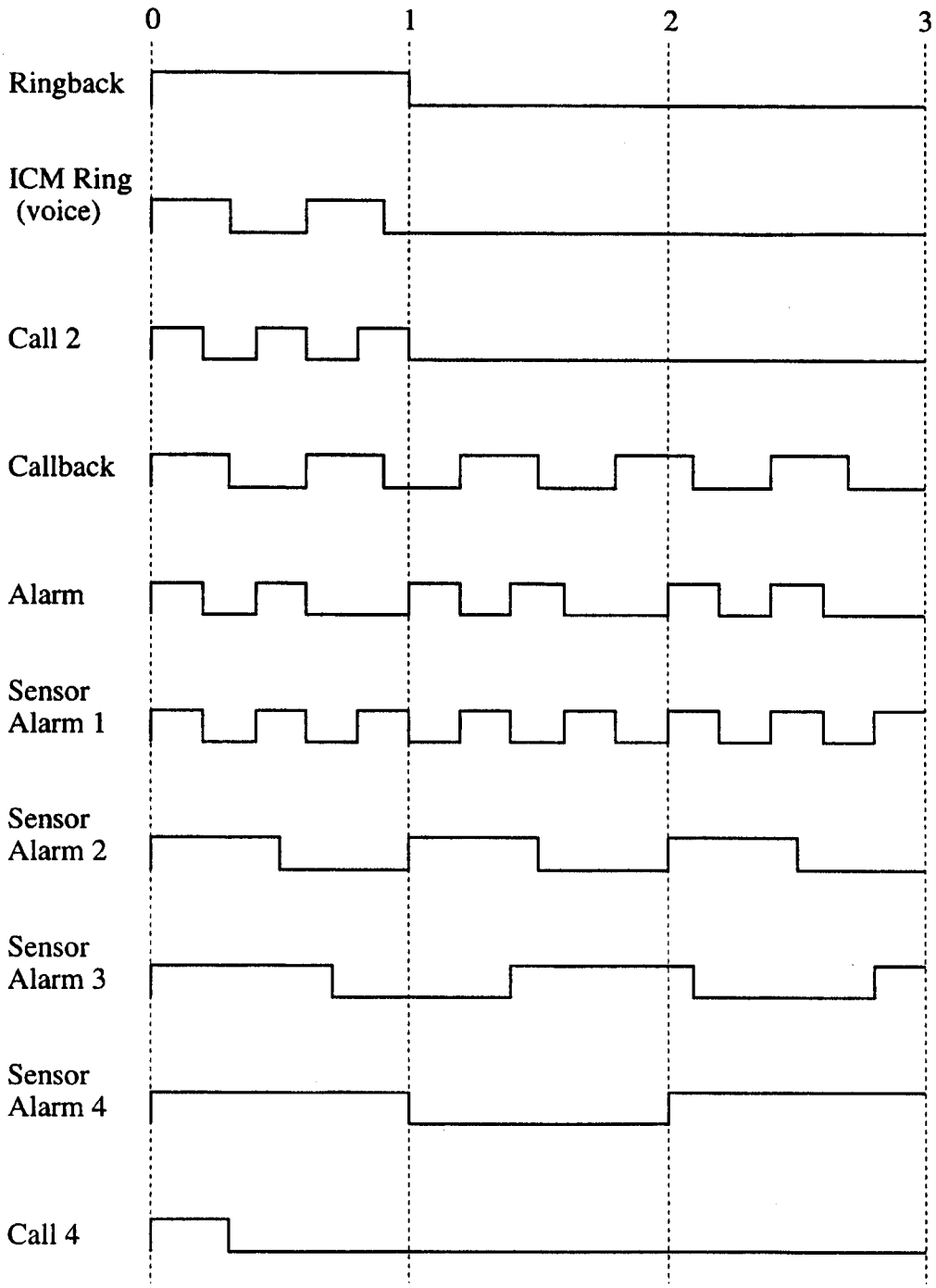
With this feature	You'll see this display...	When...
Programmable Function Key	KEY PROGRAM	You dial Service Code 851 to program your function keys
Programmable Function Key	CHECK LINE KEY nn (function)	You press CHECK and a function key while on hook, where (function) is the stored function
Park Hold	(trk name) PARK nn HOLD	You Park Hold a call (before you hang up)
Park Hold	PARK HOLD PARK No DIAL	You dial Service Code 831 to Park Hold a call
Park Hold	ANS HOLD PARK No DIAL	You dial Service Code 861 to pick up a parked call
Privacy (Data)	Time and Date DATA PRIVACY	You press the Data privacy key to activate Data Privacy
Automatic Repeat Dialing	PREVIEW CANCEL REPEAT DIAL	You cancel Automatic Repeat Dialing
Automatic Repeat Dialing	(trk name) REPEAT DIAL (digits)	Automatic Repeat Dialing is automatically outgoing
Automatic Repeat Dialing	(trk name) REPEAT DIAL	You have activated Automatic Repeat Dialing but have not hung up
Room Monitor	ROOM MONITOR ICM DIAL	You press the Room Monitor key
Room Monitor	Time and Date MONITOR << (ext name)	You activate Room Monitor at the initiating extension, where (ext name) is the name of the extension being monitored
Room Monitor	Time and Date MONITORED >>	You activate Room Monitor at the extension to be monitored
Saved Last Number Dialing	(trk name) NUMBER SAVED	You saved the number you just dialed
Saved Last Number Dialing	(trk name) SAVED (digits)	Save is outdialing your saved number
Saved Last Number Dialing	PREVIEW SAVED NUMBER (digits)	While on hook, you pressed your Saved Last Number Dialing key to preview your stored number
Saved Last Number Dialing	CHECK LINE KEY nn SAVE NUMBER REDIAL	You press CHECK and the Saved Last Number Dialing key while on hook

Introduction (Cont'd)

Table 1-4, Digital Key Telephone Displays (Page 13 of 13)

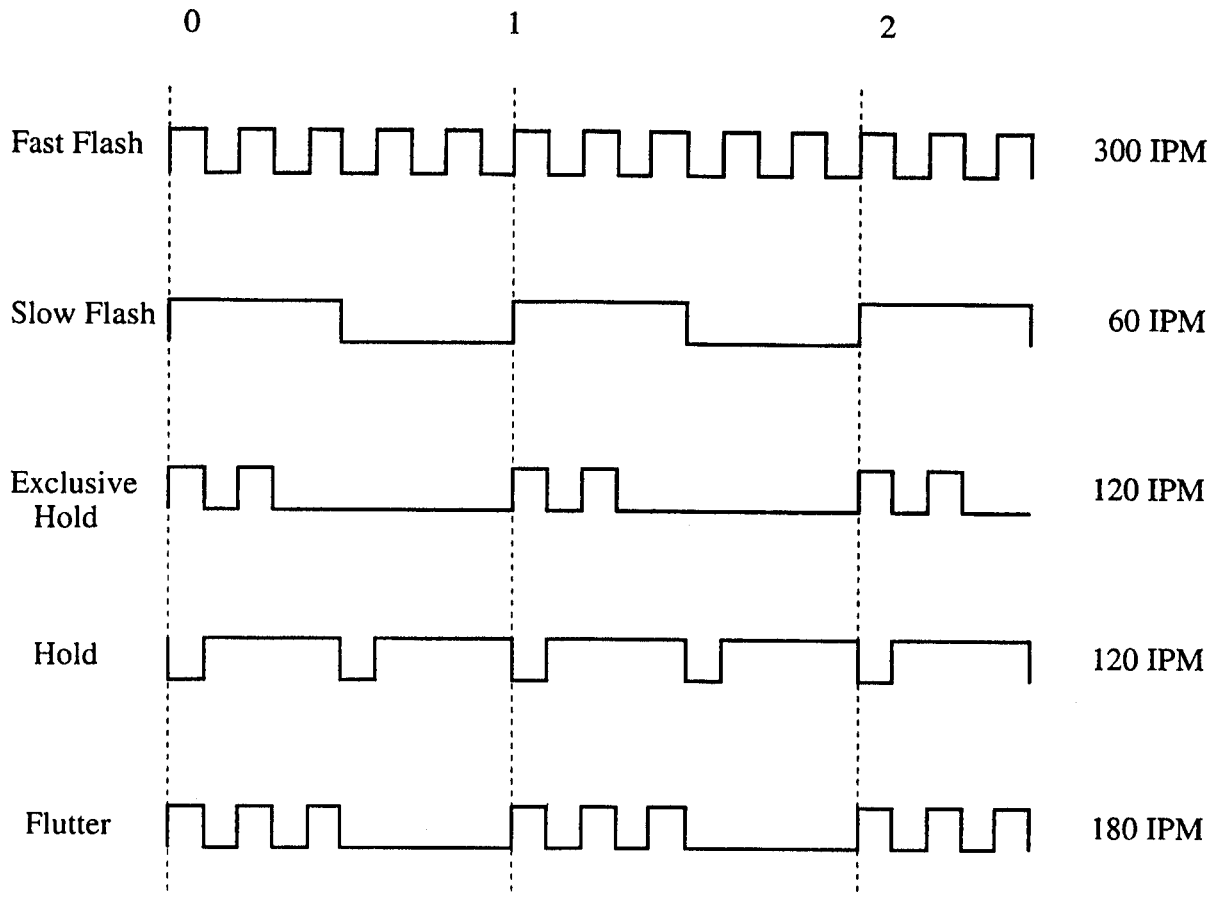
With this feature	You'll see this display...	When...
Text Messaging	TEXT MESSAGE DIAL MESSAGE No.	You dialed Service Code 836 to choose a Text Message
Selectable Ring Tone	SET INCOM RING 1:INT 2:EXT	You dial Service Code 820 to set Selectable Ring Tones
Selectable Ring Tone	SET INT INCOM .RING 1:(H) 2:(M) 3:(L)	You dial Service Code 820 plus 1 to Set Intercom Selectable Ring Tones
Selectable Ring Tone	SET EXT INCOM RING 1:(H) 2:(M) 3:(L)	You dial Service Code 820 plus 2 to Set trunk Selectable Ring Tones
Selectable Ring Tone	SET (type) INCOM RING (n) SET	You set the incoming ring type, where (type) is INT or EXT and n is the range (H, M or L)
Selectable Ring Tone	CONFIRM INCOM RIN 1:INT 2:EXT	G You dial Service Code 811 to listen to your Selectable Ring Tone Settings
Selectable Ring Tone	CONFIRM INT INCOM 1:H 2:M 3:L	You dial Service Code 811 plus 1 to listen to the Intercom ring settings
Selectable Ring Tone	CONFIRM EXT INCOM 1:H 2:M 3:L +TN1-4	You dial Service Code 811 plus 2 to listen to the trunk ring settings
Serial Call	(trk name) WAIT TRF (ext name)	You press the Serial Call key to set up a Serial Call, where (trk name) is the trunk transferred and (ext name) is destination extension
Transfer	(trk name) TRANSFER < (ext name)	A transferred trunk is ringing your phone, where (trk name) is the trunk's name and (ext name) is the name of the extension that transferred the call
Transfer	(trk name) TRF RECALL (ext name)	A trunk you transferred is recalling your phone, where (trk name) is the recalling trunk and (ext name) is extension from which the call is recalling

Table 1-5, System Ring Rates



Introduction (Cont'd)

Table 1-6, System Flash Rates



Abbreviated Dialing

Description

Abbreviated Dialing gives an extension user quick access to frequently called numbers. This saves time, for example, when calling a client with whom they dial often. Instead of dialing a long telephone number, the extension user just dials the Abbreviated Dialing code.

The system has 560 Abbreviated Dialing bins that you can allocate for Common (400) and Group (160 <20 x 8 groups>) Abbreviated Dialing. Each bin can contain a stored number up to 24 digits long.

- **Abbreviated Dialing by Single Operation**

  Abbreviated dialing also provided that the specified common/ group ABB No. can be stored to an unused programming key. The Key Telephone user can place an outgoing call only by pressing this key. These keys can be used as same like One-Touch key. This feature provides the benefit in case all One-Touch keys have already been occupied but the other Telephone Nos. are wanted to be stored to the One-Touch keys.

  There are 2 types of function keys.

  - Specified Common Abbreviated Dial key (Function Code : 1037 + ABB No.)
  - Specified Group Abbreviated Dial key (Function Code : 1038 + ABB No.)

Conditions

This feature available for key telephone and single line telephone.

The 0T TEL and SLT are not available for the single operation feature.

Default Setting

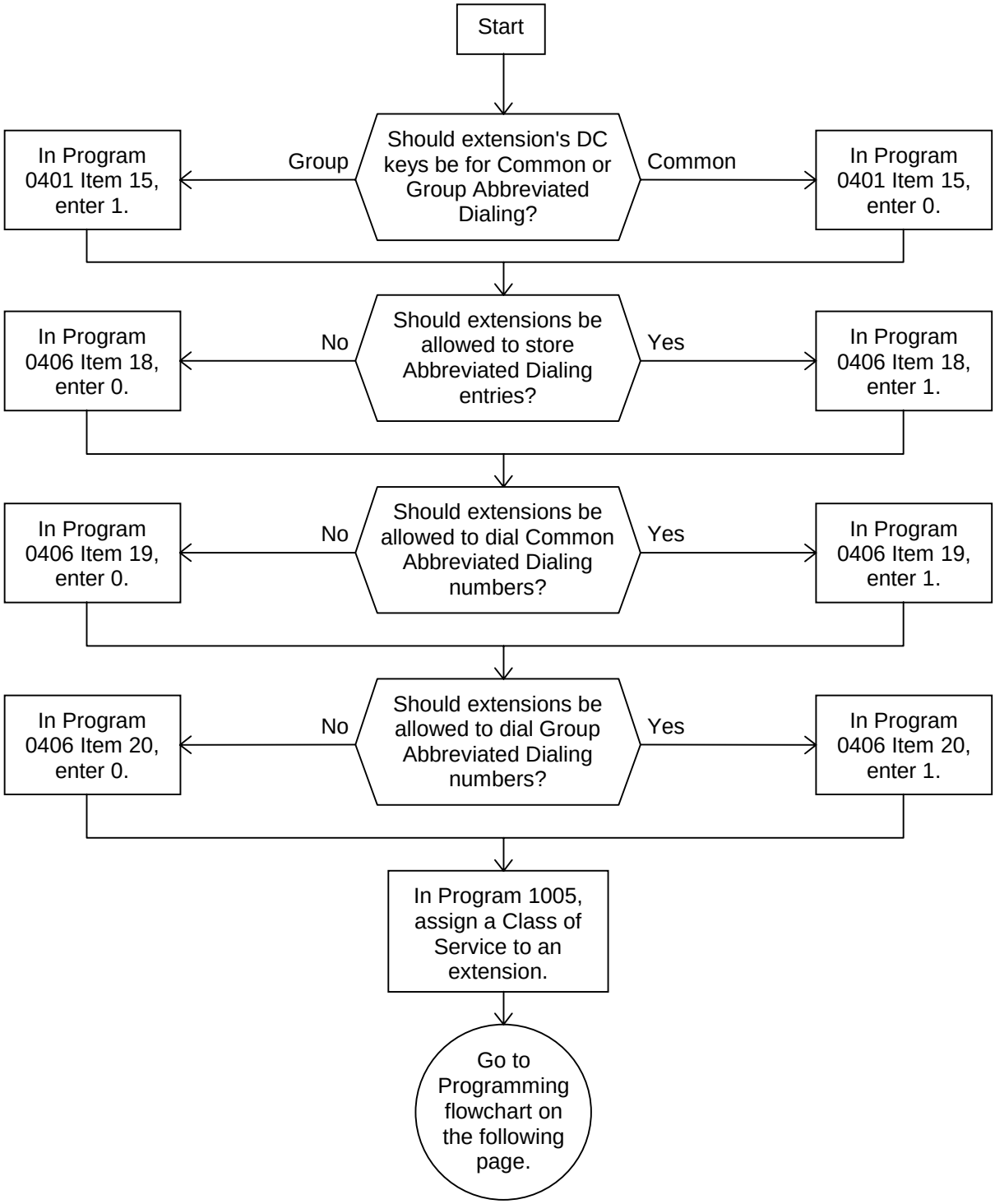
- Extension's DC key is for Common Abbreviated Dialing
- An extension's COS allows entering and using Abbreviated Dialing entries
- Bins 0-400 assigned for Common Abbreviated Dialing
- 160 bins assigned for Group Abbreviated Dialing
- No Abbreviated Dialing numbers entered.
- All extensions in Extension (Abbreviated Dial) Group 1.
- No Abbreviated Dialing keys programmed.
- Service Code of Common Abbreviated Dial Setting is dial 853.
- Service Code of Group Abbreviated Dial Setting is dial 854.
- Service Code of Common Abbreviated Dialing is dial 813.
- Service Code of Group Abbreviated Dialing is dial 814.

Options

None

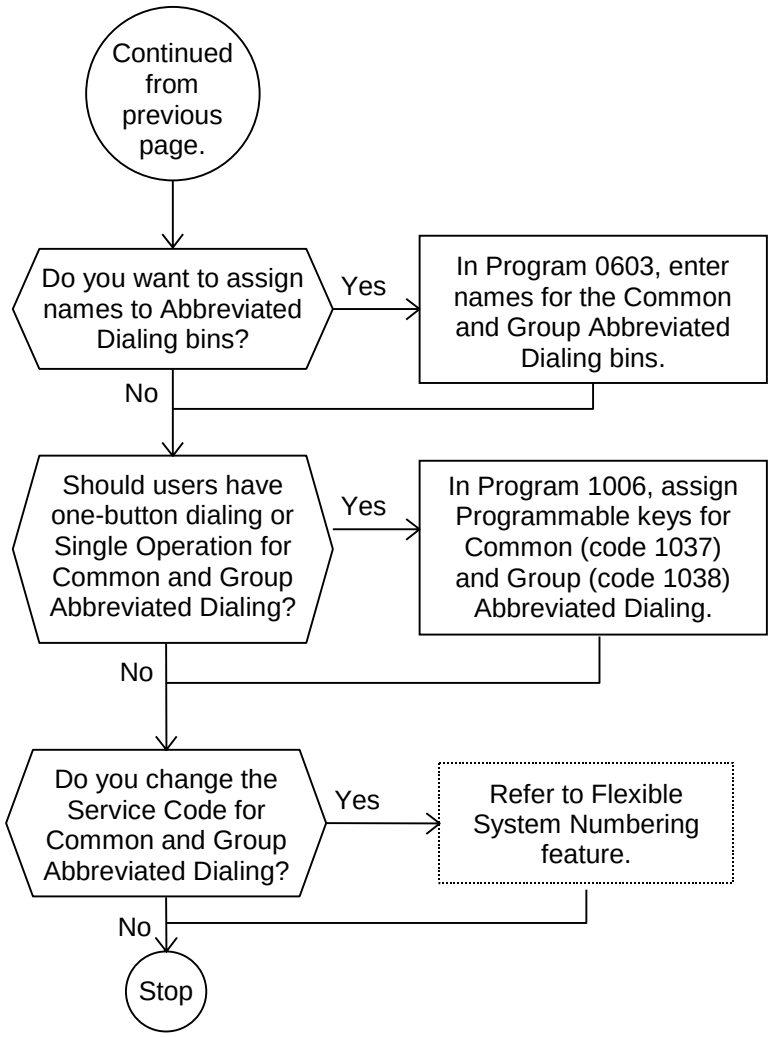
Abbreviated Dialing (Cont'd)

Programming


Start
Should extension's DC keys be for Common or Group Abbreviated Dialing?
Group
Common
In Program 0401 Item 15, enter 1.
In Program 0401 Item 15, enter 0.
Should extensions be allowed to store Abbreviated Dialing entries?
No
Yes
In Program 0406 Item 18, enter 0.
In Program 0406 Item 18, enter 1.
Should extensions be allowed to dial Common Abbreviated Dialing numbers?
No
Yes
In Program 0406 Item 19, enter 0.
In Program 0406 Item 19, enter 1.
Should extensions be allowed to dial Group Abbreviated Dialing numbers?
No
Yes
In Program 0406 Item 20, enter 0.
In Program 0406 Item 20, enter 1.
In Program 1005, assign a Class of Service to an extension.
Go to Programming flowchart on the following page.

Abbreviated Dialing (Cont'd)

Programming (Cont'd)


Continued from previous page.
Do you want to assign names to Abbreviated Dialing bins?
Yes
In Program 0603, enter names for the Common and Group Abbreviated Dialing bins.
No
Should users have one-button dialing or Single Operation for Common and Group Abbreviated Dialing?
Yes
In Program 1006, assign Programmable keys for Common (code 1037) and Group (code 1038) Abbreviated Dialing.
No
Do you change the Service Code for Common and Group Abbreviated Dialing?
Yes
Refer to Flexible System Numbering feature.
No
Stop

Abbreviated Dialing (Cont'd)

Programming (Cont'd)

> 0401 – System Options Part A, Item 15: Abbreviated Dialing DC Key Function
Assign the extension's DC key for either Common (0) or Group (1) Abbreviated Dialing.

> 0406 – COS Options, Item 18: Common/Group Abbreviated Dial Registration
In an extension's Class of Service, allow (1) or prevent (0) the storing of Abbreviated Dialing entries (Service Codes 853 and 854).

> 0406 – COS Options, Item 19: Common Abbreviated Dialing
In an extension's Class of Service, enable (1) or disable (0) Group Abbreviated Dialing.

> 0406 – COS Options, Item 20: Group Abbreviated Dialing
In an extension's Class of Service, enable (1) or disable (0) Group Abbreviated Dialing.

> 0511 – Service Code Setup, Part A Item 23: Common Abbreviated dial
Assign a service code for common abbreviated dialing code.

> 0511 – Service Code Setup, Part A Item 24: Group Abbreviated dial
Assign a service code for group abbreviated dialing code.

> 0511 – Service Code Setup, Part A, Item 68: Common abbreviated dial setting
Assign a service code for common abbreviated dial registration code.

> 0511 – Service Code Setup, Part A, Item 69: Group abbreviated dial setting
Assign a service code for Group abbreviated dial registration code.

> 0603 – Abbreviated Dialing Numbers Names
Enter the Common and Group Abbreviated Dialing numbers and names.

> 0604 – Trunk Group for Abbreviated dialing
Assign the Trunk Group which is used for Abbreviated dialing.

> 0907 – Trunk Group Routing for Extension
Assign the Trunk Route for each extension.

> 1005 – Class of Service for Extension
Assign a Class of Service (1-10) to an extension.

> 1006 – Programming Function Keys Code 1037: Common abbreviated dialing
Assign the specified Common ABB dialing or Common ABB Key. In case of specified common ABB key, the desired ABB No. is stored to the additional data area.

– Programming Function Keys Code 1038: Group abbreviated dialing
Assign the specified Group Abbreviated Dialing or Group ABB Key. In case of specified group ABB key, the desired ABB No. is stored to the additional data area.

> 1023 – Extension (Abbreviated Dial) Groups
Assign each extension to Abbreviated Extension Groups (1-8).

Abbreviated Dialing (Cont'd)

Related Features

Trunk Outgoing Call

A user can implement Abbreviated Dialing only if their extension has outgoing access to Trunks.

Trunk Group Routing

Unless a user pre-selects a Trunk, Group Routing selects the Trunk for Abbreviated Dialing.

One-Touch Dialing

An extension can have a One-Touch Key for Abbreviated Dialing Operation

PBX Compatibility

If you enter a PBX trunk access code in an Abbreviated Dialing bin, the system automatically share bins.

Programmable Function Key

Function keys simplify Abbreviated Dialing operation.

Toll Restriction

Toll Restriction may prevent a user from using a stored Abbreviated Dialing number.

Operation

<Key Telephone>

To store an Abbreviated Dialing number:

(This feature is only available for key telephone with display.)

1. Press idle CL key
2. Dial 853( ) [for common] or 854( ) [for group].
3. Dial common (000-399) or group storage code (00-19).
4. Dial telephone number you want to store (up to 24 digits).
   *Valid entries are 0-9, # and *. To enter a pause, press MIC key.*
5. Press HOLD.
6. Enter the name associated with the Abbreviated Dialing number.
7. Press HOLD.
8. Press SPK to hang up.

Abbreviated Dialing (Cont'd)

Operation (Cont'd)

<Key Telephone> (Cont'd)

To dial a Common Abbreviated Dialing number:

1. Press idle CL key.
2. Dial 813( ).

   OR

   Press DC key (when initial setting or DC key is setting to Common Abbreviated Dialing key).

   OR

   Press Common Abbreviated Dialing key (PGM 1006 or SC 851: 1037).

   To pre-select, press a trunk key in step 1 (instead of CL) before pressing the DC or Abbreviated Dialing key.

   If common ABB bin No. is stored on the key, then step-3 is not necessary.
3. Dial Common Abbreviated Dialing storage code.

   The stored number dials out.

To dial Group Abbreviated Dialing number:

1. Press idle CL key.
2. Dial 814( ).

   OR

   Press DC key.

   OR

   Press Group Abbreviated Dialing key (PGM 1006 or SC 851: 1038).

   To pre-select, press a line key in step 1 (instead of CL) before pressing the DC or Abbreviated Dialing key.

   If Group ABB bin No. is stored on the key, then step-3 is not necessary.
3. Dial the Group Abbreviated Dialing code.

   The stored number dials out.

To place an outgoing call by using specified ABB key for single operation:

This feature is only available for key telephone except 0T TEL.

1. Press a specified ABB key.

Abbreviated Dialing (Cont'd)

Operation (Cont'd)

<Key Telephone> (Cont'd)

To assign the Specified ABB key for single operation:

This feature is only available for key telephone except 0T TEL.

1. Press SPK key and dial 851 ( ).
2. Press one of unused Programmable key.
3. Dial Function code (1037 or 1038).
4. Dial the desired ABB No.
5. Press SPK key to finish.

Note: If HOLD key is pressed instead of dialing ABB No. at Step-4, then the key shall be defined as Common / Group ABB access key.

To check your stored Abbreviated Dialing numbers:

(This feature is only available for key telephone with display.)

1. Press CHECK.
2. Press DC key.
3. Dial the Abbreviated Dialing Code (e.g., common code 001).
   *If the entire stored number is too long for your phone's display, press * to see the rest of it.*
4. Press CLEAR.
   To display additional numbers, repeat from step 2.

<Single Line Telephone>

To dial a Common Abbreviated Dialing number:

1. Off hook.
2. Dial 813( ).
3. Dial Common Abbreviated Dialing storage code.
   The stored number dials out.

To dial Group Abbreviated Dialing number:

1. Off hook.
2. Dial 814( ).
3. Dial the Group Abbreviated Dialing code.
   The stored number dials out.

Account Code (Optional / Forced)

Description

Account Codes are user-dialed codes that help the system administrator categorize and/or restrict Trunk calls. The system has two types of Account Codes:

- **Optional Account Codes**

  Optional Account Codes allow a user to enter an Account Code while placing a Trunk call or anytime while on a call. This type of Account Code is optional; the system does not require the user to enter it.

- **Forced Account Codes**

  Forced Account Codes require an extension user to enter an Account Code every time before they place a Trunk call. If the user doesn't enter the code, the system prevents the call.

Account Codes print along with the other call data on the SMDR record after the call completes. Account Codes can be from 1-8 digits long, using 0-9 and #.

Conditions

This feature available for key telephone and DTMF type single line telephone.

(A) If a user enters a code that exceeds the eight digits limit, the system ignores the Account Code entry.

(B) The system does not verify Forced Account Codes.

(C) If the system has Account Codes disabled, the digits dialed (e.g.,*1234*) appear on the SMDR report as part of the number dialed.

Default Setting

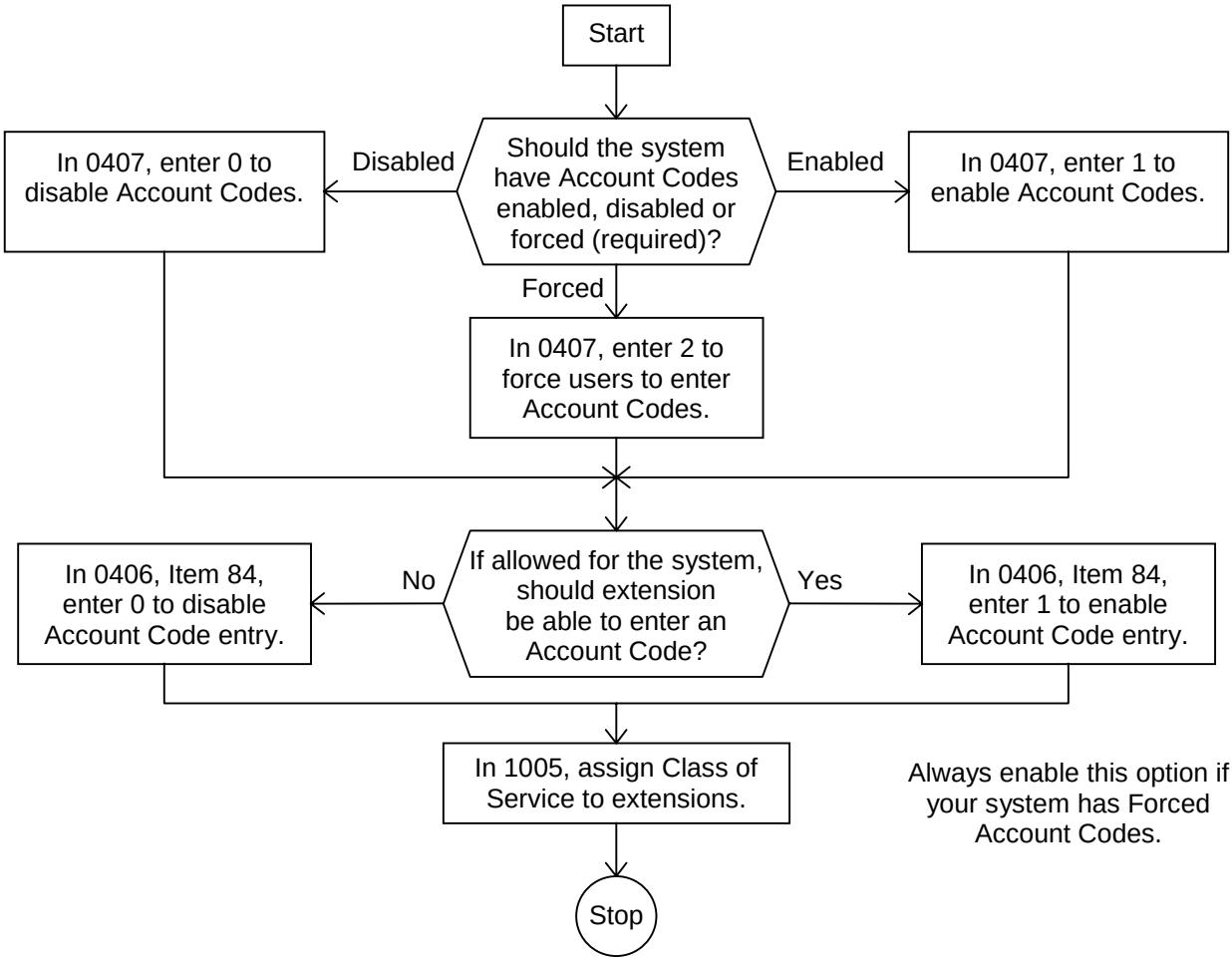
- Account Codes disabled in an extension's Class of Service.
- Account Codes enabled in the system (but not forced).
- Service Code for Account Code is dial 891.
- No Account Code keys assigned.

Options

None

Account Code (Optional / Forced) (Cont’d)

Programming (Cont'd)


Start
Should the system have Account Codes enabled, disabled or forced (required)?
Disabled
In 0407, enter 0 to disable Account Codes.
Enabled
In 0407, enter 1 to enable Account Codes.
Forced
In 0407, enter 2 to force users to enter Account Codes.
If allowed for the system, should extension be able to enter an Account Code?
No
In 0406, Item 84, enter 0 to disable Account Code entry.
Yes
In 0406, Item 84, enter 1 to enable Account Code entry.
In 1005, assign Class of Service to extensions.
Stop
Always enable this option if your system has Forced Account Codes.

Account Code (Optional / Forced) (Cont'd)

Programming (Cont'd)

> 0406 – COS Options, Item 84: Account code service
  In an extension's Class of Service, enable (1) or disable (0) the ability to enter Account Codes.

> 0407 – Mode Selection of Account Code
  Set Account Code operation.
  The options are:
    0 Account Codes disabled
    1 Account Codes enabled (but not required)
    2 Account Codes required (forced)

> 0511 – Service Code Setup, Part A Item 86: Account code
  Assign a service code for account code.

> 1005 – Class of Service for Extension
  Assign a Class of Service (1-10) to an extension.

Related Features

One-Touch Dialing

To simplify Account Code entry, store the Account Code (e.g., *1234*) in a One-Touch key. Just press the key instead of dialing the codes.

Station Message Detail Recording

Account Codes appear on the SMDR report.

Operation

<Key Telephone>

To enter an Account Code any time while on a Trunk call:

The outside caller cannot hear the Account Code digits you enter.

1. Dial *.
2. Dial your Account Code (1-8 digits, using 0-9 and #).
3. Dial *.

Account Code (Optional / Forced) (Cont'd)

Operation (Cont'd)

<Key Telephone> (Cont'd)

To enter an Account Code while placing a Trunk call:

If your system has Forced Account Codes, you must follow this procedure.

1. Access Trunk for outside call.

   You can access a Trunk by pressing a line key or dialing a code.
2. Dial *.
3. Dial your Account Code (1-8 digits, using 0-9 and #).
4. Dial *.

   If the system has Forced Account Codes and you don't enter a code, your call cannot go through.
5. Dial number you want to call.

<Single Line Telephone>

To enter an Account Code any time while on a Trunk call:

1. Dial *.
2. Dial your Account Code (1-8 digits, using 0-9 and #).
3. Dial #.

To enter an Account Code while placing a Trunk call:

If your system has Forced Account Codes, you must follow this procedure.

1. Access Trunk for outside call.

   You can access a Trunk by pressing trunk access code.
2. Dial *.
3. Dial your Account Code (1-8 digits, using 0-9 and #).
4. Dial *.

   If the system has Forced Account Codes and you don't enter a code, your call cannot go through.
5. Dial number you want to call.

Alarm Clock

Description

Alarm Clock lets a key telephone and SLT extension work like an alarm clock. An extension user have Alarm shall be reminded by the ring for a meeting or an appointment. There are two types of Alarm Clocks:

Alarm Clock 1 (sounds only once at the preset time)

Alarm Clock 2 (sounds every day at the preset time)

Conditions

This feature available for key telephone and single line telephone.

Default setting

- The Alarm Clock duration is 30 seconds.
- An extension's Class of Service allows alarm clock setting.
- Service Code of Clock Alarm is dial 827.
- Service Code of Common Canceling Code is dial 720.

Options

None

Programming

Refer to the Programming Flowchart on the following page.

> 0405 – System Timers, Item 23: Alarm Clock Duration
Set the duration of the Alarm Clock signal (0-64800 seconds).

> 0406 – COS Options, Item 27: Alarm Clock
In an extension's Class of Service, allow (1) or prevent (0) Alarm clock setting.

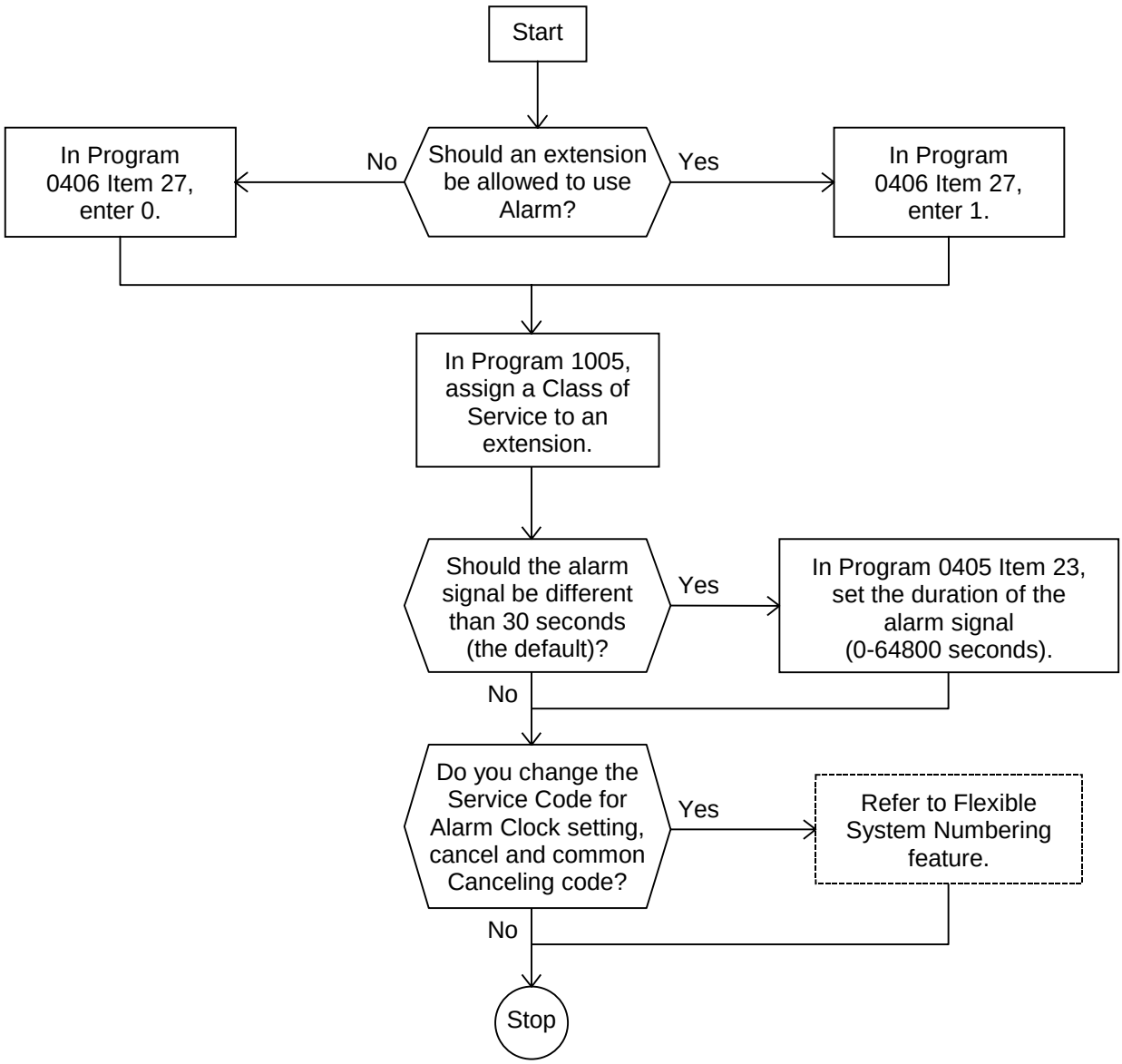
> 0511 – Service Code Setup, Part A Item 22: Alarm Clock
Assign service code of Alarm Clock.

> 0514 – Service Code Setup, Part B Item 10: Common Canceling Code
Assign service code of Common Canceling Code.

> 1005 – Class of Service for Extension
Assign a Class of Service (1-10) to an extension.

Alarm Clock (Cont'd)

Programming (Cont'd)


Start
Should an extension be allowed to use Alarm?
No
In Program 0406 Item 27, enter 0.
Yes
In Program 0406 Item 27, enter 1.
In Program 1005, assign a Class of Service to an extension.
Should the alarm signal be different than 30 seconds (the default)?
Yes
In Program 0405 Item 23, set the duration of the alarm signal (0-64800 seconds).
No
Do you change the Service Code for Alarm Clock setting, cancel and common Canceling code?
Yes
Refer to Flexible System Numbering feature.
No
Stop

Alarm Clock (Cont'd)

Related Features

None

Operation

<Key Telephone>

To set the alarm clock:

1. Press idle CL key.
2. Dial 827( ).
3. Dial alarm clock type (1 or 2).
   (Confirmation tone is heard.)
   Alarm clock 1 sounds only once. Alarm clock 2 sounds each day at the preset time.
4. Dial the alarm clock time (24-hour clock).
   (Confirmation tone is heard.)
   For example, for 1: 15 PM dial 1315.
5. Press SPK to hang up.

To silence an alarm clock:

1. Press CLEAR.

To check the programmed alarm clock time:

(This feature only available for key telephone with display.)

1. Press CHECK.
2. Dial 827( ).
3. Dial alarm clock type (1 or 2).
   The programmed time displays.
4. Press CLEAR.

To cancel an alarm clock:

1. Press idle CL key.
2. Dial 827( ).
3. Dial alarm clock type (1 or 2).
   (Confirmation tone is heard.)
4. Dial 9999.
   (Confirmation tone is heard.)
5. Press SPK to hang up.

Alarm Clock (Cont'd)

Operation (Cont'd)

<Key Telephone> (Cont'd)

To cancel an alarm clock:

1. Press idle CL key.
2. Dial 720( ).

When you cancel an alarm clock by dial 720, these features are canceled at same time, DND, Call Forward, Repeat Dial, Message Waiting, Head-set Mode and Text Message.

<Single Line Telephone>

To set the alarm clock:

1. Off hook.
2. Dial 827( ).
3. Dial alarm clock type (1 or 2).
   (Confirmation tone is heard.)
   Alarm clock 1 sounds only once. Alarm clock 2 sounds each day at the preset time.
4. Dial the clock alarm time (24-hour clock).
   (Confirmation tone is heard.)
   For example, for 1: 15 PM dial 1315.
5. On hook.

To silence an alarm clock:

1. Off hook.
   (Music on hold tone is heard.)
2. On hook.

To check the programmed alarm clock time:

This feature only available for key telephone with display.

To cancel an alarm clock:

1. Off hook.
2. Dial 827( ).
3. Dial alarm type (1 or 2).
   (Confirmation tone is heard.)
4. Dial 9999.
   (Confirmation tone is heard.)
5. On hook.

OR

1. Off hook.
2. Dial 720( ).
3. On hook.

When you cancel an alarm clock by dial 720, these features are canceled at same time, DND, Call Forward, Repeat Dial, Message Waiting, Head-set Mode and Text Message.

Alphanumeric Display

Description

Key telephone with display has a 2-line, 20 character per line alphanumeric display that provides various feature status messages. These messages help the display telephone user process calls, identify callers and customize features. Refer to Table 1-4 at the beginning of this section for a listing of the available digital key telephone displays.

- Busy Status Displaying

When the Key Telephone user (Display type only) places an intercom call to the busy status extension, the details of busy status (who is talking with him or which Line is used by him) can be displayed. And also, the details of busy status for Trunk (who is using) can be displayed after accessing to the Trunk. This feature provides the benefit that the calling Key Telephone user can decide whether Break In feature is used or not after checking the busy status

Conditions

This feature available for key telephone with display.

Default setting

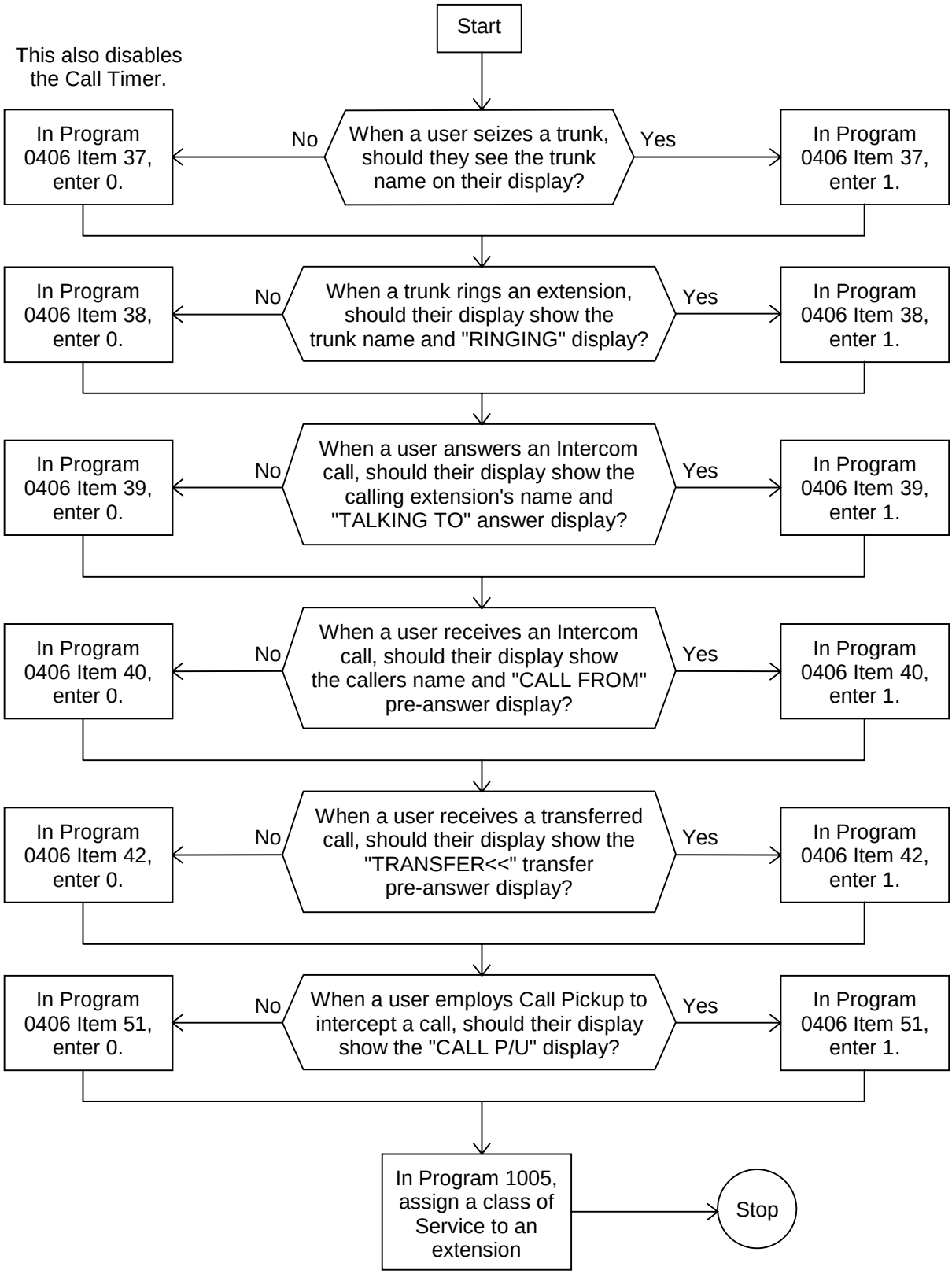
- An extension's Class of Service allows the displaying of:
  - A Trunk's name/number when the user seizes the Trunk
  - A Trunk's name/number when the Trunk is ringing
  - The incoming intercom caller's name and number
  - An extension's incoming Transfer pre-answer display
  - An extension's Group Call Pickup display

Options

None

Alphanumeric Display (Cont'd)

Programming


Start
This also disables the Call Timer.
When a user seizes a trunk, should they see the trunk name on their display?
No
Yes
In Program 0406 Item 37, enter 0.
In Program 0406 Item 37, enter 1.
When a trunk rings an extension, should their display show the trunk name and "RINGING" display?
No
Yes
In Program 0406 Item 38, enter 0.
In Program 0406 Item 38, enter 1.
When a user answers an Intercom call, should their display show the calling extension's name and "TALKING TO" answer display?
No
Yes
In Program 0406 Item 39, enter 0.
In Program 0406 Item 39, enter 1.
When a user receives an Intercom call, should their display show the callers name and "CALL FROM" pre-answer display?
No
Yes
In Program 0406 Item 40, enter 0.
In Program 0406 Item 40, enter 1.
When a user receives a transferred call, should their display show the "TRANSFER<<" transfer pre-answer display?
No
Yes
In Program 0406 Item 42, enter 0.
In Program 0406 Item 42, enter 1.
When a user employs Call Pickup to intercept a call, should their display show the "CALL P/U" display?
No
Yes
In Program 0406 Item 51, enter 0.
In Program 0406 Item 51, enter 1.
In Program 1005, assign a class of Service to an extension
Stop

Alphanumeric Display (Cont'd)

Programming

Refer to the Programming Flowchart on the Following Page

> 0406 – COS Options, Item 34: Non-Hold transfer
In an extension's Class of Service, enable (1) or disable (0) for the “Non-Hold Transfer”.
Caution : *If “Busy Status Displaying” for Trunk feature is to be used, then this item* ***should be set to “0”.***

> 0406 – COS Options, Item 37: Trunk No. and Name Display (Seizing)
In an extension's Class of Service, enable (1) or disable (0) the displaying of a Trunk's name/number when the user seizes the Trunk.

> 0406 – COS Options, Item 38: Trunk No. and Name Display (Incoming)
In an extension's Class of Service, enable (1) or disable (0) the displaying of a Trunk's name/number when the Trunk is ringing.

> 0406 – COS Options, Item 39: Extension No. and Name Display (conversation)
In an extension's Class of Service, enable (1) or disable (0) the incoming Intercom caller's name and number.

> 0406 – COS Options, Item 40: Extension No. and Name Display (incoming)
In an extension's Class of Service, enable (1) or disable (0) the pre-answer display of the incoming Intercom caller's name and number.

> 0406 – COS Options, Item 42: Transfer Information Display
In an extension's Class of Service, enable (1) or disable (0) an extension's incoming Transfer pre-answer display.

> 0406 – COS Options, Item 51: Call Pick up Information Display
In an extension's Class of Service, enable (1) or disable (0) an extension's Group Call Pickup display.

> 0406 – COS Options, Item 88: Busy status displaying
In an extension's Class of Service, enable (1) or disable (0) for the “Busy status displaying”.(to monitor)
Caution : *If “Busy Status Displaying” feature is to be used, then this item* ***should be set to “1”.***

Related Features

Refer to Table 1-4 in “Introduction” section.

Operation

Display indication appears automatically as operated.

Audio Communications Interface (ACI)

Description

The Audio Communication Interface (ACI) provides three audio ports (with associated relays) for Music on Hold, External Paging or auxiliary devices such as tape recorders and loud bells. The system allows up to 2 ACIs, for a maximum of 6 audio ports. Each ACI unit requires an unused port on the DSTU card. The ACI gives you more flexibility when connected auxiliary devices since it doesn't use up resources on PGDU (Page/Doorphone), ASTU (Analog Station) or ATRU (Analog Trunk) cards.

- **Music on Hold**

  You can connect up to three customer-provided Music on Hold music sources to an ACI. This lets you add additional music sources if the external source on the CPU card or the internal source is not adequate. By using ACIs, you could even have a different music source for each Trunk.

  When the system switches the ACI audio port to a Trunk on Hold, the ACI relay associated with the ACI audio port closes. You can use this capability to switch on the music source, if desired.

  Extension users can dial the ACI audio port extension number and listen to the connected music source. The ACI relay associated with the port closes when the call goes through.

  For Music on Hold, connect the music source to the ACI audio port IN (Input) jack. Connect the music source control leads to the CTL (control relay) jack. Refer to the Hardware Manual for additional details.

- **External Paging**

  An ACI audio port can also be an External Page output. When connected to customer-provided External Paging equipment, the ACI port provides External Paging independent of the PGDU card. To use the External Paging, an extension user just dials the ACI audio port extension number and makes the announcement. The system broadcasts the announcement from the ACI audio port and simultaneously closes the associated ACI relay. You can use the relay closure to control the External Paging amplifier, if required.

  For External Paging, connect the Paging amplifier to the ACI audio port OUT (output) jack. Connect the amplifier control leads to the CTL (control relay) jack. Refer to the Hardware Manual for additional details.

Audio Communications Interface (ACI) (Cont'd)

Description (Cont'd)

- **Auxiliary Device Control**

  The ACI can control a customer-provided tape recorder. When an extension user dials the ACI audio port extension number, they can automatically start the recorder and activate the record function.

  When the user hangs up, the recording stops and the tape recorder turns off. For tape recording, connect the tape recorder AUX input jack to the ACI audio port OUT (output) jack. Connect the recorder control leads (if available) to the CTL (control relay) jack.

  Refer to the Hardware Manual for additional details.

  By using Group Hunt, you can arrange multiple tape recorders into a pool. When an extension user dials the department Group pilot number, they reach the first available tape recorder in the pool.

  The relays on the ACI can optionally control customer-provided external ringers (loud bells) and buzzers. When an extension user dials the ACI audio port extension number, the associated ACI relay closes and activates the ringer. You could use this capability to control an emergency buzzer for a noisy machine shop floor, for example.

Physical Ports and Software Ports

Each ACI consists of a physical port for connection to the phone system and three audio ports. For programming purposes, the audio ports are also called as software ports. The physical port connects to a station position on a DSTU card. During installation, the first ACI you set up is physical port 1; the second ACI is physical port 2, etc.

Each ACI has three software ports, which are numbered, independently of the physical ports. Normally, the first ACI set up has software ports 1-3; the second ACI has software ports 4-6, etc. There are a total of 6 software ports (2 ACIs × 3 ports each).

During programming, you assign ACI extension numbers, Department Group options to ACI software ports, not physical ports. During installation, you connect equipment to the jacks on the ACI that correspond to the software port. Refer to the system Hardware Manual for more installation details.

Audio Communications Interface (ACI)(Cont'd)

Description (Cont'd)

Conditions

The devices connected to the ACI must be compatible with the specifications below. Refer to the system Hardware Manual for additional details.

ACI Interface Specifications	
Relay Contacts	
Configuration	Normally Open
Maximum Contact Ratings	24V DC @ 500mA
	120V AC @250mA
Minimum Application load	1V DC @ 1mA
Audio/Music Input	
Input Impedance	47K Ohms @ 1KHz
Audio/Paging Output	
Output Impedance	600 Ohms @ 1KHz
Maximum Output	400 mV RMS

This feature available for key telephone and single line telephone.

Default Setting

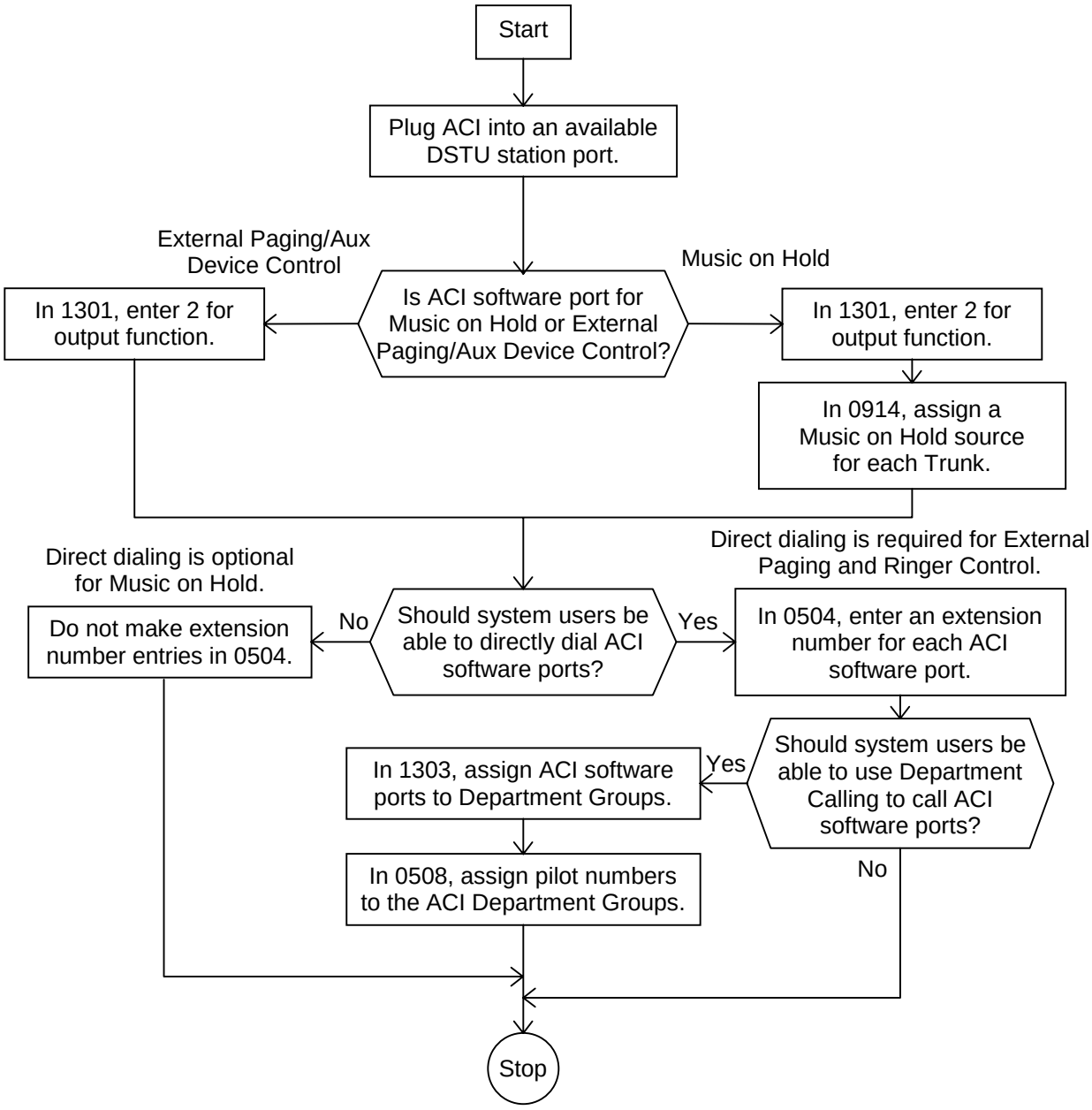
- No ACI circuit types programmed (for physical ports).
- No ACI extension numbers programmed.
- No ACI group pilot numbers programmed.
- All ACI software ports have function 0 (no setting - neither input or output)
- All ACI software ports in ACI Department Group 1.

Options

DX2E-3ACI-A

Audio Communications Interface (ACI) (Cont'd)

Programming


Start
Plug ACI into an available DSTU station port.
External Paging/Aux Device Control
Music on Hold
Is ACI software port for Music on Hold or External Paging/Aux Device Control?
In 1301, enter 2 for output function.
In 1301, enter 2 for output function.
In 0914, assign a Music on Hold source for each Trunk.
Direct dialing is optional for Music on Hold.
Direct dialing is required for External Paging and Ringer Control.
No
Should system users be able to directly dial ACI software ports?
Yes
Do not make extension number entries in 0504.
In 0504, enter an extension number for each ACI software port.
Should system users be able to use Department Calling to call ACI software ports?
Yes
In 1303, assign ACI software ports to Department Groups.
No
In 0508, assign pilot numbers to the ACI Department Groups.
Stop

Audio Communications Interface (ACI) (Cont'd)

Programming (Cont'd)

> 0504 – ACI Extension Number
  Assign extension numbers to ACI software ports (1-6). This lets system users dial ACI ports directly.

> 0508 – ACI Group Pilot Numbers
  Assign pilot numbers to ACI groups (1-4). When a user dials the pilot number, they reach an available ACI software port within the External Paging/ringer control.

> 0914 – Setting the Music on Hold Source
  Assign music on hold tone sending ACI port for each Trunk.

> 1301 – Basic ACI Port Setup
  Assign ACI type for each ACI port.

> 1303 – ACI Groups
  Assign ACI software ports (1-6) to ACI Department Groups (1-4).
  This lets ACI callers connect to ACI software ports by dialing the group's pilot number (set in Program 0508).

Related Features

Background Music

ACI software ports cannot be Background Music sources.

Hotline

ACI extension cannot have Hotline keys for ACI software ports.

Music on Hold

ACI software ports can be Music on Hold music sources. Since the system allows up to 6 ACI software ports, each Trunk can have its own music source.

One-Touch Dialing

An extension can have One-Touch Keys for ACI software ports. The gives the extension user:

- One touch access to external music
- One touch External Paging
- One touch loud ringer control

Paging (External)

ACI software ports can provide External Paging with control, independent of the External Paging circuits on the PGDU card.

Audio Communications Interface (ACI) (Cont'd)

Operation

<Key Telephone>

To call an ACI software port:

1. Press idle CL key.
2. Dial ACI software port extension number.
   OR
   Dial ACI Department Group extension number.
   OR
   Press One-Touch Key for ACI extension or Department Group.

After you call an ACI software part:

- If the port is set for input (Program 1301=1) and a music source is connected, you hear music.
  OR
- If the port is set for output (Program 1301=2) and External Paging is connected, you can page into the external zone.
  OR
- If the port is set for output (Program 1301=2) and a loud ringer is connected, you activate the loud ringer.

<Single Line Telephone>

To call an ACI software port:

1. Off hook.
2. Dial ACI software port extension number.
   OR
   Dial ACI Department Group extension number.

After you call an ACI software port:

- If the port is set for input (Program 1301=1) and a music source is connected, you hear music.
  OR
- If the port is set for output (Program 1301=2) and External Paging is connected, you can page into the external zone.
  OR
- If the port is set for output (Program 1301=2) and a loud ringer is connected, you activate the loud ringer.

Automated Attendant for DUD and DISA (VAU)

Description

For DUD (Direct Universal Dialing) and DISA (Direct Inward System Access) calls from outside, the system can provide voice announcement as AA (Automated Attendant) by the connection of VAU module. Up to 3 simultaneous calls can be handled by the VAU. And by adding “VAU Expansion Board” in the module, then up to 6 simultaneous calls can be handled. AA message can be assigned per trunk for each day/night mode.

(refer to “DUD” and “DISA” for more details)

- **Leave Telephone Number from DUD/DISA caller**

  When DUD/DISA caller calls to busy extension, DUD/DISA caller can leave the own telephone number to busy extension, if the extension is display type. And then the extension user finished conversation, he/she can check and call back the call's telephone number by simple operation.

Condition

- The DUD or the DISA caller must use DTMF type telephone.
- The destination (called telephone) must be display type for "Leave Telephone Number".
- This feature available for outside caller.

(A) If DISA/DUD caller uses the rotary dial telephone, or if the caller does not dial after answering of VAU, incoming call will be transferred to pre-programmed incoming ring group if you set.

(B) If desired extension is idle, incoming call will be transferred to that extension. However, the call will not be attended by VAU even if transferred extension does not answer the call.

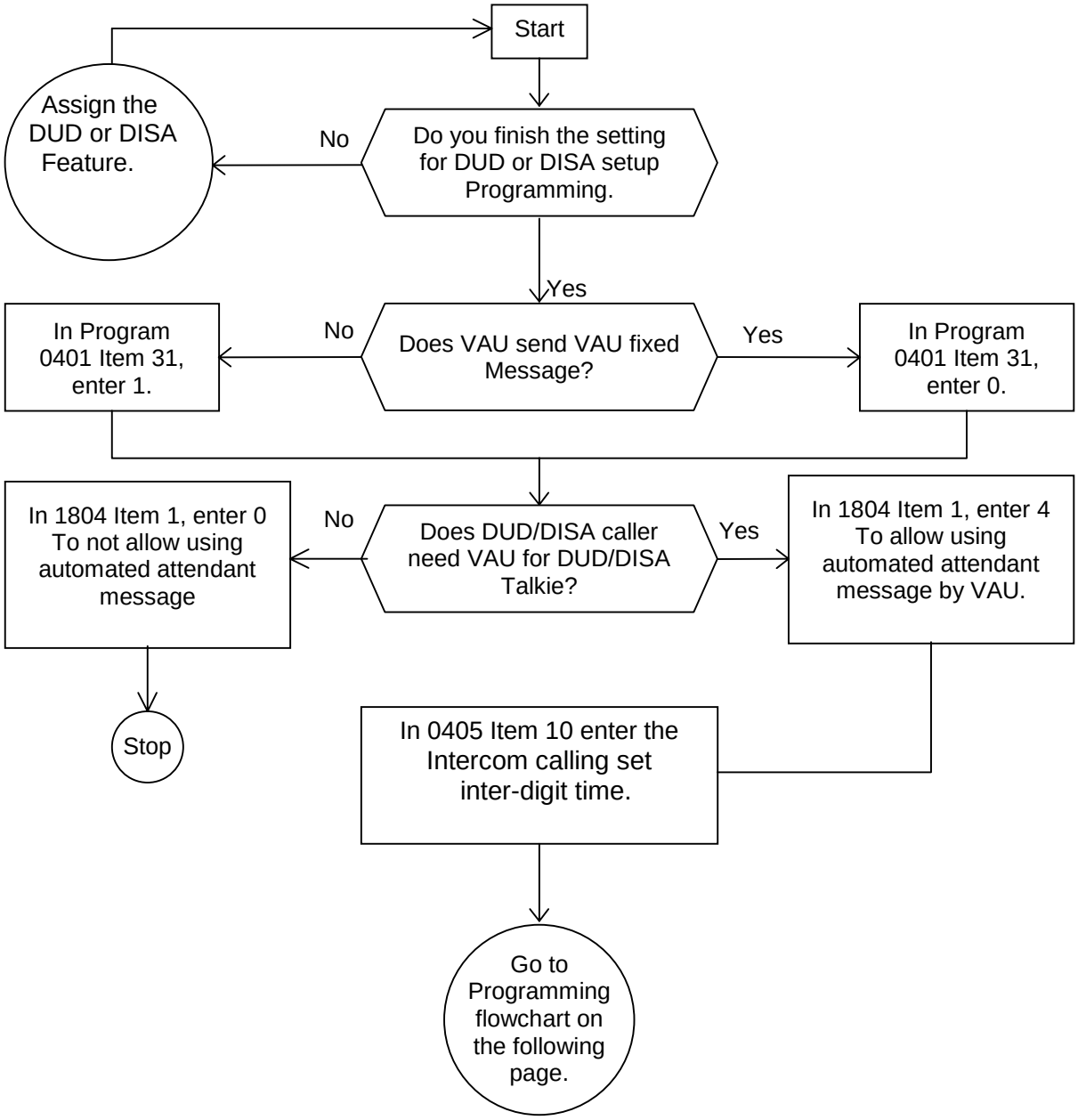
Options

DX2E-VAU-A module

VAU Expansion Board

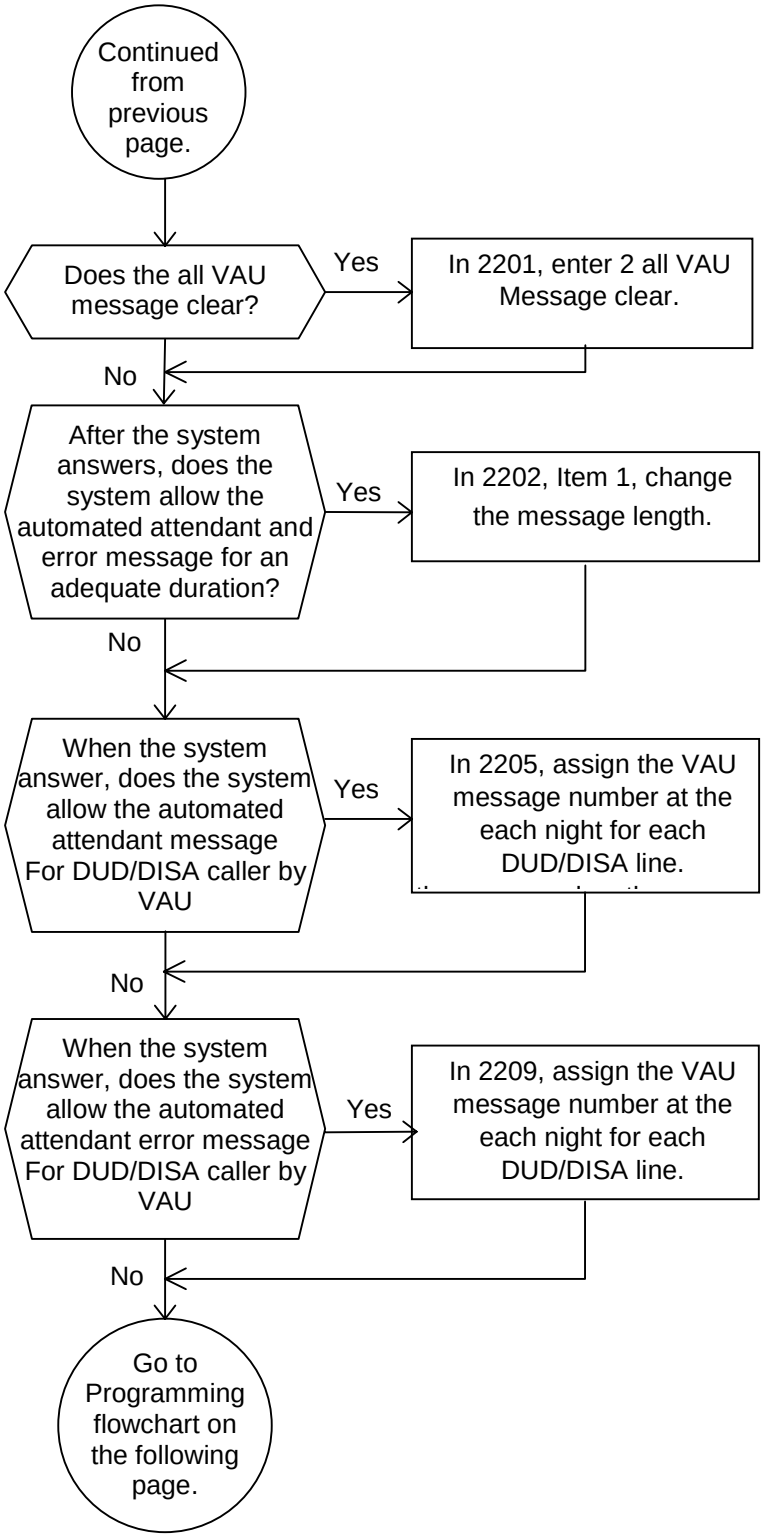
Automated Attendant for DUD and DISA (VAU) (Cont'd)

Programming


Start
Assign the DUD or DISA Feature.
No
Do you finish the setting for DUD or DISA setup Programming.
Yes
In Program 0401 Item 31, enter 1.
No
Does VAU send VAU fixed Message?
Yes
In Program 0401 Item 31, enter 0.
In 1804 Item 1, enter 0 To not allow using automated attendant message
No
Does DUD/DISA caller need VAU for DUD/DISA Talkie?
Yes
In 1804 Item 1, enter 4 To allow using automated attendant message by VAU.
Stop
In 0405 Item 10 enter the Intercom calling set inter-digit time.
Go to Programming flowchart on the following page.

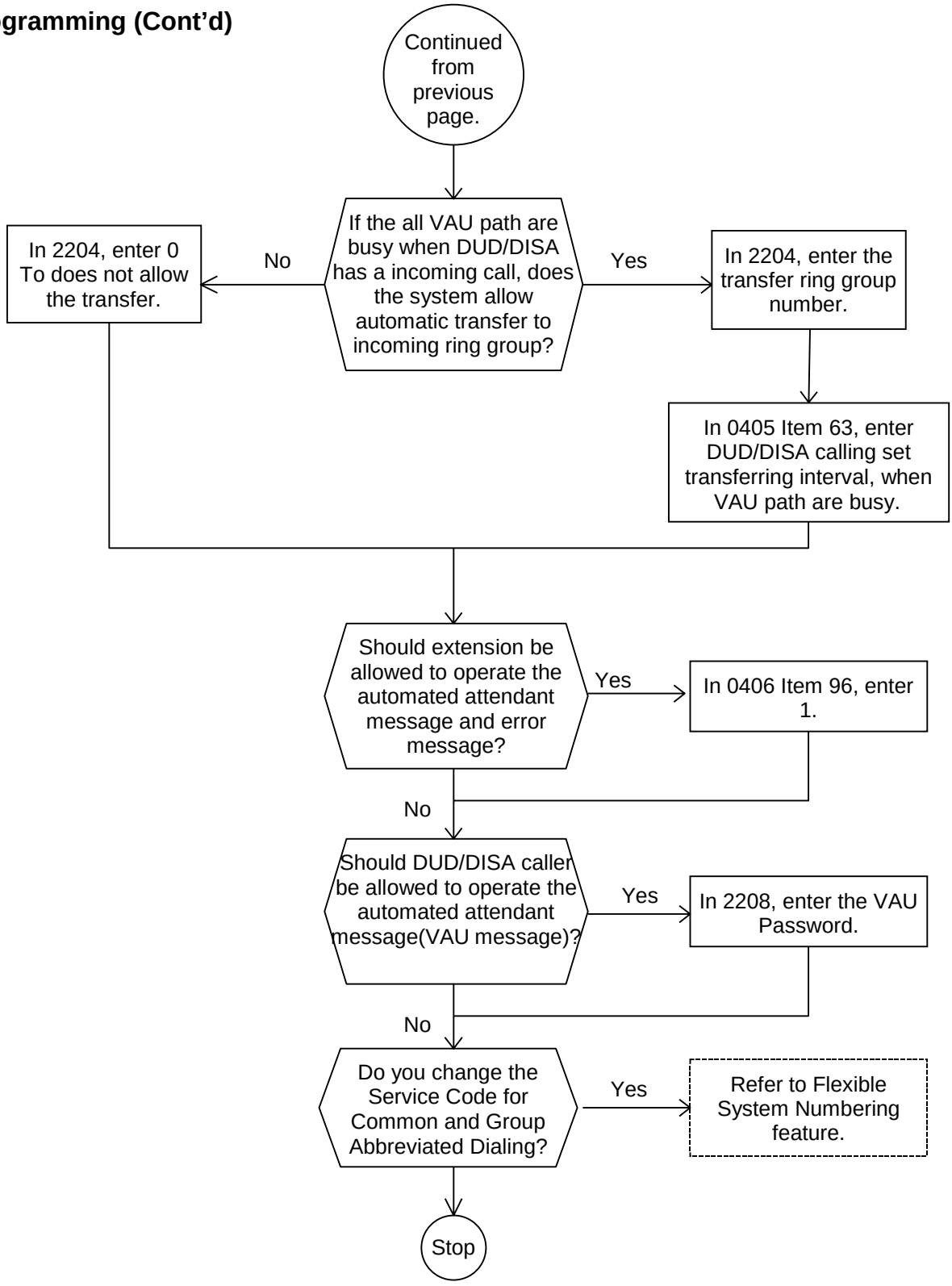
Automated Attendant for DUD and DISA (VAU) (Cont'd)

Programming (Cont'd)


Continued from previous page.
Does the all VAU message clear?
Yes
In 2201, enter 2 all VAU Message clear.
No
After the system answers, does the system allow the automated attendant and error message for an adequate duration?
Yes
In 2202, Item 1, change the message length.
No
When the system answer, does the system allow the automated attendant message For DUD/DISA caller by VAU
Yes
In 2205, assign the VAU message number at the each night for each DUD/DISA line.
No
When the system answer, does the system allow the automated attendant error message For DUD/DISA caller by VAU
Yes
In 2209, assign the VAU message number at the each night for each DUD/DISA line.
No
Go to Programming flowchart on the following page.

Automated Attendant for DUD and DISA(VAU) (Cont'd)

Programming (Cont'd)


Continued from previous page.
If the all VAU path are busy when DUD/DISA has a incoming call, does the system allow automatic transfer to incoming ring group?
No
In 2204, enter 0 To does not allow the transfer.
Yes
In 2204, enter the transfer ring group number.
In 0405 Item 63, enter DUD/DISA calling set transferring interval, when VAU path are busy.
Should extension be allowed to operate the automated attendant message and error message?
Yes
In 0406 Item 96, enter 1.
No
Should DUD/DISA caller be allowed to operate the automated attendant message(VAU message)?
Yes
In 2208, enter the VAU Password.
No
Do you change the Service Code for Common and Group Abbreviated Dialing?
Yes
Refer to Flexible System Numbering feature.
Stop

Automated Attendant for DUD and DISA(VAU) (Cont'd)

Programming (Cont'd)

Note: For additional programming information on DUD and DISA, refer to DUD (Direct Universal Dialing) and DISA (Direct Inward System Access).

> 0401 - System Options, Part A, Item 31: VAU fixed message
Set the use (0) or not use (1) VAU fixed message for VAU feature.

> 0405 - System Timers, Part A, Item 10: Intercom interdigit timer
Set the Intercom interdigit time (0 - 64800 seconds) when placing intercom calls, users Must dial each digit within this interval.

> 0405 - System Timers, Part A, Item 63: VAU no-answer time (VAU)
Set the waiting time (0 - 64800 seconds) of automatic answer for incoming call, when All VAU paths are busy. If all VAU paths are busy while waiting time, incoming call transfer to transferring ring group (CMD 2204).

> 0406 - COS Options, Item 96: Operation for VAU message (VAU)
In an extension's Class of Service, enable (1) or disable (0) the initiate operation for Automated Attendant Message.

> 0514 - Service Code Setup, Part B,
Item 4: Leave telephone number from DUD/DISA (VAU)
Assign a service code for Leave Telephone Number from DUD/DISA.

> 0514 - Service Code Setup, Part B,
Item 6: Operation for VAU message (VAU)
Assign a service code for Operation for VAU message.

> 0514 - Service Code Setup, Part B,
Item 33: Check leave number (VAU)
Assign a service code, leave telephone number received key telephone user call and erase the left telephone number.

> 1804 - DUD,DISA Talkie
Assign DUD, DISA Talkie type and extension group for Talkie for each Trunk And each night mode. When you use Automated Attendant features, enter 4(VAU) to Target Trunk and night mode.

> 2201 - VAU Reset
When you use to erase the VAU Personal Message and VAU Message.

> 2202 - Message Length Assignment for VAU
Set the maximum length of message length for VAU Message and Personal Message.

> 2204 - Transfer Ring Group Setup When VAU No Answer
Assign a transfer ring group number, when VAU will be no answer.

Automated Attendant for DUD and DISA(VAU) (Cont'd)

Programming (Cont'd)

> 2205 - Automated Attendant Massage Assignment
Assign the VAU message which is used Automated Attendant Message for DUD/DISA caller from VAU.

> 2208 - VAU Password Setup
Assign the VAU Password. When DUD/DISA caller is heard and recorded VAU Message, DUD/DISA caller must dial VAU.

> 2209 – Automated Attendant Error Message
Assign the VAU Message number which is used Automated Attendant Error Message for DUD/DISA caller from VAU.

Related Features

DISA (Direct Inward System Access)

DISA feature is supported by the automated attendant and automated voice guidance.

DUD (Direct Universal Dialing)

DUD feature is supported by the automated attendant and automated voice guidance.

Operation

For DISA caller

To place a DISA call from outside:

1. Call to DISA Trunk.
2. Waits for the DISA Trunk to automatically answer with "Please enter your password".
   OR
   Hear Unique dial tone.
3. Dial the 6-digit DISA password (access code). (used DTMF tone)
4. Hear Automated Attendant Message.
5. Dials the system extension number directly to feature access service code.

For DUD caller

To place a DUD call from outside:

1. Call to DUD Trunk.
2. Hear Automated Attendant Message.
3. Dials the system extension number directly.

Automated Attendant for DUD and DISA(VAU) (Cont'd)

Operation (Cont'd)

For DUD and DISA Caller

To leave telephone number for busy extension:

1. Dial busy extension (key telephone with display) number.
2. Hear "Station AAAA is not available, please dial a new station or dial BBBB to wait, or dial 714 to leave number".
   (AAAA is extension number, BBBB is service code for Camp On, 714 is service code for Leave Telephone Number)
3. Dial 714( ).
4. Hear "Please enter your area code and telephone number".
5. Dial own telephone number (maximum 14 digits).
6. Hear "Dial # to call you back at CCC...CC".
   (CCC...CC is left telephone number.)
7. Dial #.
8. Hear "Good by".

For key telephone with display user

To call the telephone number which is left from outside:

1. Press idle CL key.
2. Dial 743( ).
3. Dial 2.
4. The system calls to the left telephone number automatically.

To erase the telephone number left:

1. Press idle CL key.
2. Dial 743( ).
3. Dial 3.
4. Press SPK to hang up.

Automated Attendant for DUD and DISA(VAU) (Cont'd)

Operation (Cont'd)

Automated Attendant Message Control

<Key Telephone>

To operate the VAU message (Automated Attendant Message and Automated Attendant Error Message):

1. Press idle CL key.
2. Dial 716( ).

3-a. Dial 3 (erase).
4-a. Dial message number (01-16).
5-a. Press SPK to hang up (finish).
OR
Dial 5 (listen: go to 4-b).
OR
Dial 7 (re-record: go to 4-c).

3-b. Dial 5 (listen).
4-b. Dial message number (01-16).
5-b. You hear recorded VAU message.
6-b. Press SPK to hang up (finish).
OR
Dial 3 (erase: go to 4-a).
OR
Dial 7 (re-record: go to 4-c).

3-c. Dial 7 (re-record).
4-c. Dial message number (01-16).
5-c. You hear "Please start recording <beep>".
OR
"Three times of beep tone".
6-c. Recording VAU message by your voice.
7-c. Press SPK to hang up (finish).
OR
Dial 3 (erase: go to 4-a).
OR
Dial 5 (listen: go to 4-b).

Automated Attendant for DUD and DISA(VAU) (Cont'd)

Operation (Cont'd)

<Single Line Telephone>

To operate the VAU message (Automated Attendant Message and Automated Attendant Error Message):

1. Off hook.
2. Dial 716( ).

3-a. Dial 3 (erase).
4-a. Dial message number (01-16).
5-a. On hook (finish).
OR
Dial 5 (listen: go to 4-b).
OR
Dial 7 (re-record: go to 4-c).

3-b. Dial 5 (listen).
4-b. Dial message number (01-16).
5-b. You hear recorded VAU message.
6-b. On hook (finish).
OR
Dial 3 (erase: go to 4-a).
OR
Dial 7 (re-record: go to 4-c).

3-c. Dial 7 (re-record).
4-c. Dial message number (01-16).
5-c. You Hear "Please start recording <beep>".
OR
"Three times of beep tone".
6-c. Recording VAU message by your voice.
7-c. On hook (finish).
OR
Dial 3 (erase: go to 4-a).
OR
Dial 5 (listen: go to 4-b).

Automated Attendant for DUD and DISA(VAU) (Cont'd)

Operation (Cont'd)

<DISA Outside Caller>

To record the VAU message (Automated Attendant Message and Automated Attendant Error Message from outside):

1. Call to DISA Trunk.
2. Waits for the DISA Trunk to automatically answer with "Please enter your password".
3. Dial the 6-digit DISA password (access code). (Used DTMF tone)
4. Hear Automated Attendant Message.
5. Dial 716( ).
6. Dial the 6-digit VAU password.
7. Dial 7.
8. Dial VAU message number (01-16).
9. Hear "Please start recording <beep>".
10. Recording VAU message.

To confirm the VAU message from outside:

1. Call to DISA Trunk.
2. Waits for the DISA Trunk to automatically answer with "Please enter your password".
3. Dial the 6-digit DISA password (access code). (Used DTMF tone)
4. Hear Automated Attendant Message.
5. Dial 716( ).
6. Dial the 6-digit VAU password.
7. Dial 5.
8. Dial message number (01-16).
9. Hear the recorded VAU message.

To erase the VAU message from outside:

This feature is not available for DISA caller.

Automated Attendant for DUD and DISA(VAU) (Cont'd)

Operation (Cont'd)

<DUD Outside Caller>

To record the VAU message (Automated Attendant Message and Automated Attendant Error Message from outside):

1. Call to DUD Trunk.
2. Hear Automated Attendant Message.
3. Dial 716( ).
4. Dial the 6-digit VAU password.
5. Dial 7.
6. Dial VAU message number (01-16).
7. Hear "Please start recording <beep>".
8. Recording VAU message.

To confirm the VAU message from outside:

1. Call to DUD Trunk.
2. Hear Automated Attendant Message.
3. Dial 716( ).
4. Dial the 6-digit VAU password.
5. Dial 5.
6. Dial message number (01-16).
7. Hear the recorded VAU message.

To erase the VAU message from outside:

This feature is not available for DUD caller.

Automatic Repeat Dialing

Description

If an extension user places a Trunk call that is busy or unanswered, they can have Automatic Repeat Dialing try it again later on. The user doesn't continually retries it (up to three times) until the called party answers.

Conditions

This feature available for key telephone.

Default Setting

- The system waits 60 seconds between Automatic Repeat Dialing attempts
- After Automatic Repeat Dialing places a call, the system waits 30 seconds for the called party to answer.
- An extension's Class of Service permits Automatic Repeat Dialing.
- Service Code of Common Canceling Service Code is dial 720.

Options

None

Programming

> 0405 – System Timers, Item 36: Interval of Repeat Dial
Set the internal between Repeat are dial attempts (0-64800 seconds).

> 0405 – System Timers, Item 37: Repeat Dial Enable Call
Set how long the system waits (0-64800 seconds) for the called party to answer after an Automatic Repeat Dialing. If the called party doesn't answer within this interval, the system hangs up and tries again (after the Automatic Repeat Dialing Time).

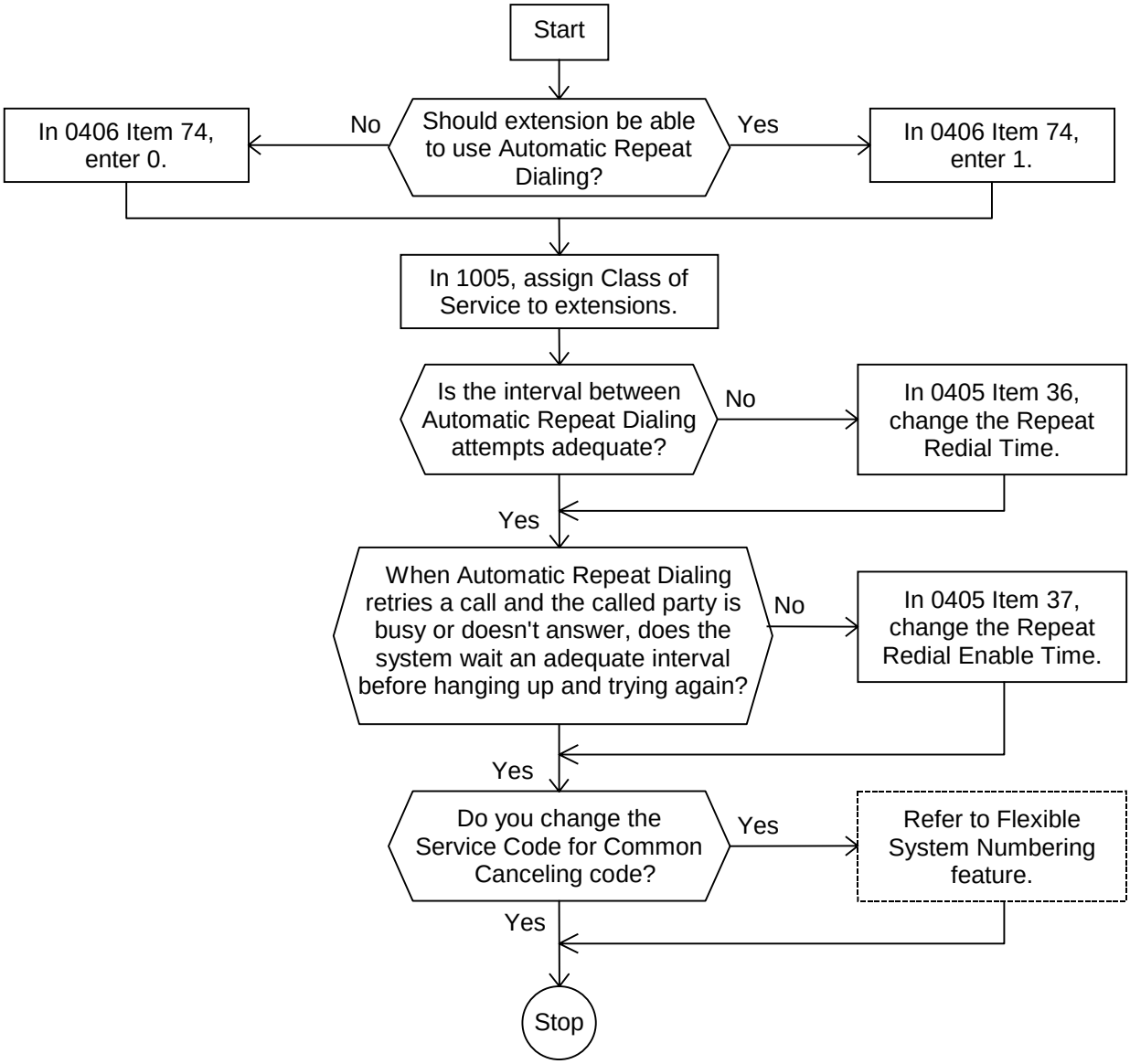
> 0406 – COS Options, Item 74: Automatic Repeat Dialing
In an extension's Class of Service, enable (1) or disable (0) an extension's ability to use Automatic Repeat Dialing.

> 0514 – Service Code Setup, Part B
Item 10: Common Canceling service code
Assign a service code of common Canceling service code.

> 1005 – Class of Service for Extension
Assign a Class of Service (1-10) to an extension.

Automatic Repeat Dialing (Cont'd)

Programming (Cont'd)


Start
Should extension be able to use Automatic Repeat Dialing?
No
In 0406 Item 74, enter 0.
Yes
In 0406 Item 74, enter 1.
In 1005, assign Class of Service to extensions.
Is the interval between Automatic Repeat Dialing attempts adequate?
No
In 0405 Item 36, change the Repeat Redial Time.
Yes
When Automatic Repeat Dialing retries a call and the called party is busy or doesn't answer, does the system wait an adequate interval before hanging up and trying again?
No
In 0405 Item 37, change the Repeat Redial Enable Time.
Yes
Do you change the Service Code for Common Canceling code?
Yes
Refer to Flexible System Numbering feature.
Yes
Stop

Automatic Repeat Dialing (Cont'd)

Related Features

Last Number Dialing / Save Last Number Dialing

An extension user can quickly redial their last call.

Operation

To use Automatic Repeat Dialing (if the outside party you call is unavailable or busy):

1. Place Trunk call.

   Listen for busy tone or ring-no-answer.
2. Press DC.
3. Press LND.
4. Press SPK to hang up.

   The system periodically redials the call.

To cancel Automatic Repeat Dialing:

1. Do not lift handset.

   Lifting the handset cancels Automatic Repeat Dialing.
2. Press DC.
3. Press LND.

See also Last Number Dialing.

OR

1. Press idle CL key.
2. Dial 720( ). (Common Canceling Service Code)
3. Press SPK to hang up.

When you cancel of alarm clock by dial 720, these features are cancelled at same time, DND, Call Forward, Repeat Dial, Message Waiting, Head-set Mode and Text Message.

BGM (Background Music)

Description

BGM (Background Music) sends music from a customer-provided music source to speakers on the keyphone. If a station user activates it, BGM is played whenever the station is in on-hook condition.

Conditions

This feature available for key telephone and external paging speaker.

(Background Music requires a customer-provided music source to be connected to the 32CPRU (for dX-Z96) or 24CPRU (for dX-Z24). Refer to the system Hardware Manual.)

Default Setting

- An extension's Class of Service allows BGM.
- Service Code of BGM is dial 825.

<Note> For dX-Z24 system, BGM function is not allowed as default. For the activation, refer to dX-Z24 Hardware Manual page 5-12.

Options

DX2E-4PGDU-S1 (if BGM is sent from external speaker)

Programming

> 0108 – Service Tone Setup, Tone 18: BGM (Back Ground Music) <For dX-Z24 only>
Change Time slot number from 29 to “28”.

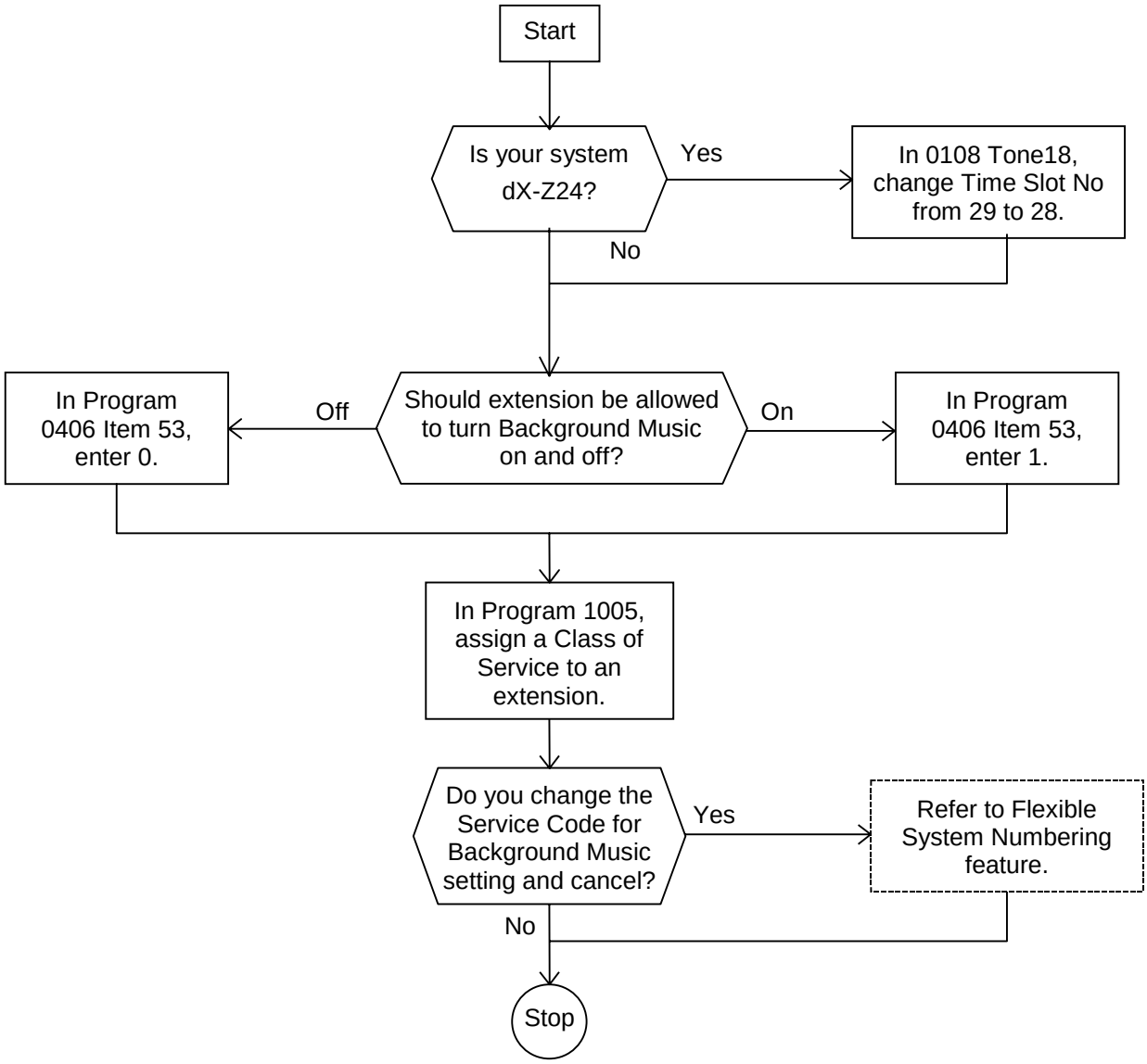
> 0406 – COS Options, Item 53: BGM (Back Ground Music)
In an extension's Class of Service, allow (1) or prevent (0) an extension from turning Background Music on and off.

> 0511 – Service Code Setup, Part A Item 52: BGM
Assign service code of BGM.

> 1005 – Class of Service for Extension
Assign a Class of Service (1-10) to an extension.

BGM (Background Music) (Cont'd)

Programming (Cont'd)


Start
Is your system dX-Z24?
Yes
In 0108 Tone18, change Time Slot No from 29 to 28.
No
Should extension be allowed to turn Background Music on and off?
Off
In Program 0406 Item 53, enter 0.
On
In Program 0406 Item 53, enter 1.
In Program 1005, assign a Class of Service to an extension.
Do you change the Service Code for Background Music setting and cancel?
Yes
Refer to Flexible System Numbering feature.
No
Stop

BGM (Background Music) (Cont'd)

Related Features

Music on Hold

The system can broadcast music to callers on Hold.

Operation

To turn Background Music on or off:

1. Press idle CL key,
2. Dial 825( ).
   (Confirmation tone is heard.)
3. Press SPK to hang up.

Break-In

Description

Break In permits an extension user to break into another extension user's call on the handset or speaker (in case of handsfree) verbally.

There are two Break In modes: Monitor Mode and Speech Mode. With Monitor Mode, the caller Break In can listen to another user's conversation but cannot participate. With Speech Mode, the caller Break In can listen and join to the conversation established. For the Speech mode, it is programmable either to send the intrusion tone or not.

CAUTION

Unauthorized intrusion on calls using this feature may be interpretted as an invasion of privacy.

Conditions

This feature available for key telephone and single line telephone.

Default Setting

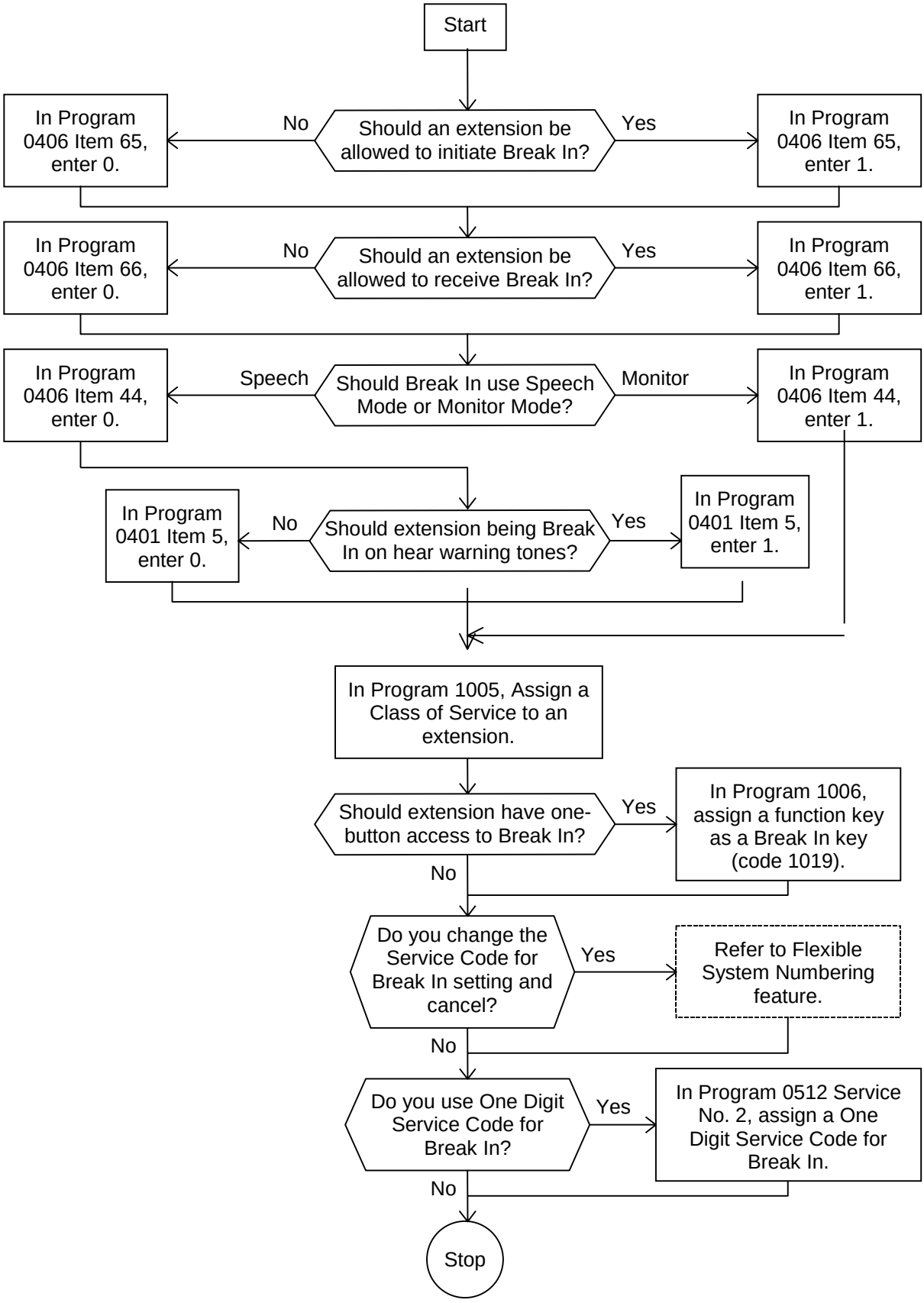
- Intrusion (warning) tone is provided.
- Break In Speech Mode enabled.
- Break In Monitor Mode disabled.
- Class of Service allows extensions to initiate and receive Break In.
- Service Code of Break In is dial 810.

Options

None

Break In (Cont'd)

Programming


Start
Should an extension be allowed to initiate Break In?
No
In Program 0406 Item 65, enter 0.
Yes
In Program 0406 Item 65, enter 1.
Should an extension be allowed to receive Break In?
No
In Program 0406 Item 66, enter 0.
Yes
In Program 0406 Item 66, enter 1.
Should Break In use Speech Mode or Monitor Mode?
Speech
In Program 0406 Item 44, enter 0.
Monitor
In Program 0406 Item 44, enter 1.
Should extension being Break In on hear warning tones?
No
In Program 0401 Item 5, enter 0.
Yes
In Program 0401 Item 5, enter 1.
In Program 1005, Assign a Class of Service to an extension.
Should extension have one-button access to Break In?
Yes
In Program 1006, assign a function key as a Break In key (code 1019).
No
Do you change the Service Code for Break In setting and cancel?
Yes
Refer to Flexible System Numbering feature.
No
Do you use One Digit Service Code for Break In?
Yes
In Program 0512 Service No. 2, assign a One Digit Service Code for Break In.
No
Stop

Break In (Cont'd)

Programming (Cont'd)

Refer to the Programming Flowchart on the following page.

> 0401 – System Options, Part A, Item 5: Intrusion Tone
Enable (1) or disable (0) the Break In Tone on the Speech mode.

> 0406 – COS Options, Item 44: Break In Monitor Mode
In an extension's Class of Service, Monitor mode (1) or Speech mode (0) the Break In Speech Mode at the initiating extension (i.e., Break In initiator).

> 0406 – COS Options, Item 65: Break In
In an extension's Class of Service, enable (1) or disable (0) the Break In at the initiating extension (i.e., Break In initiator).

> 0406 – COS Options, Item 66: Broken In
In an extension's Class of Service, enable (1) or disable (0) the Break In at the receiving extension (i.e., Broken In).

> 0511 Service Code Setup, Part A Item 61: Break in
Assign a service code for Break In (default code 810)

> 0512 One Digit Service Code Setup, Service No.2 Break in
Assign a One-Digit Service Code for Break In.

> 1005 – Class of Service for Extension
Assign a Class of Service (1-10) to an extension.

> 1006 – Programming Function Keys
Assign a function key for Break In (code 1019).

Related Features

Conference

An extension user cannot Break In on Conference mode.

Intercom

An extension user cannot Break In on an Intercom call of the Intercom callers is using Handsfree Answer back. Both Intercom parties must have either lifted the handset or pressed SPK.

Intercom Off-hook Signaling / Voice Over

If the system provides Automatic Override (0406-Item6=1), an extension caller cannot Break in to the busy keyphone unless the called keyphone is being received the 2nd call in the time It means both CL1 and CL2 should be busy at the receiving side for the Break In attempt.

Privacy (Data)

Privacy blocks Bleak In attempts

Programmable Function Key

Function keys simplify Break In operation.

Break In (Cont'd)

Operation

<Key Telephone>

To Break In on a conversation in progress:

1. Call busy extension.
2. Press Break In key (PGM 1006 or SC 851: 1019).

OR

Dial 810( ).

OR

Dial One Digit Service Code ( ).

<Single Line Telephone>

To Break In on a conversation in progress:

1. Call busy extension.
2. Dial 810( ).

OR

Dial One Digit Service Code ( ).

Caller-ID

Description

In case of receiving the Caller-ID information from public network on the incoming trunk, the system can indicate the information on the keyphones' display and SMDR output.

The system supports both Caller-ID reception from ISDN trunk and analogue trunk with Bellcore specification.

For more details, refer to separate issue of Caller-ID manuals.

Call Forward

Description

Call Forward permits an extension user to redirect their calls to another extension. Call Forward ensures that the user's calls are covered when they are away from their work area. There are four types of Call Forward for internal usage:

- **Call Forward**
  All calls forward immediately to the destination, and only the destination rings.

- **Call Forward with Dual Ringing**
  All calls forward immediately to the destination, and both the destination and the forwarded extension ring.

- **Busy Transfer**
  Calls forward only when the extension is busy.

- **Unanswered Call Transfer**
  Calls forward only if they are unanswered (Ring No Answer).

  Calls Forward reroutes calls from the initiating (forwarding) extension. To reroute calls from the destination extension, use Call Forward with Forward with Follow Me.

Additionally, the feature that a call forwards to an external party is provided. For the details, refer to ***External Call Forward****.*

Conditions

This feature available for key telephone and single line telephone.

(Note) The system does not allow the chaining of Call Forwards. For example, extension 216 forwards to 218, and 218 in turn forwards to 220. However, the calls to 216 don't route to 220.

Default Setting

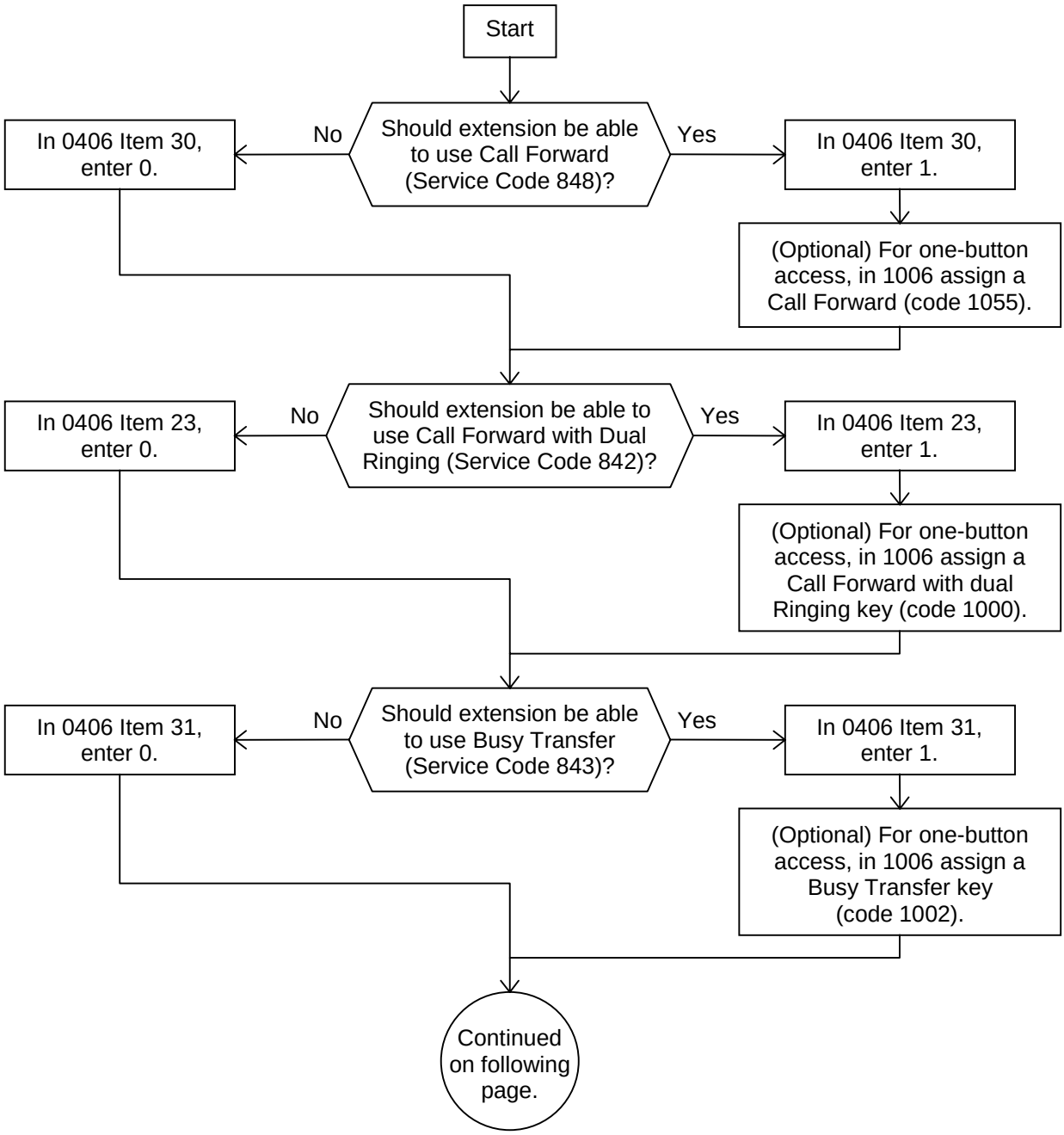
- Delayed Call Forward interval is 10 seconds.
- Extension users can activate Call Forward Immediate, Both Ringing, When Busy and When Unanswered.
- Service Code of Call forward with dual ring is dial 842.
- Service Code of Busy transfer is dial 843.
- Service Code of Unanswered call transfer is dial 845.
- Service Code of Call forward is dial 848.

Options

None

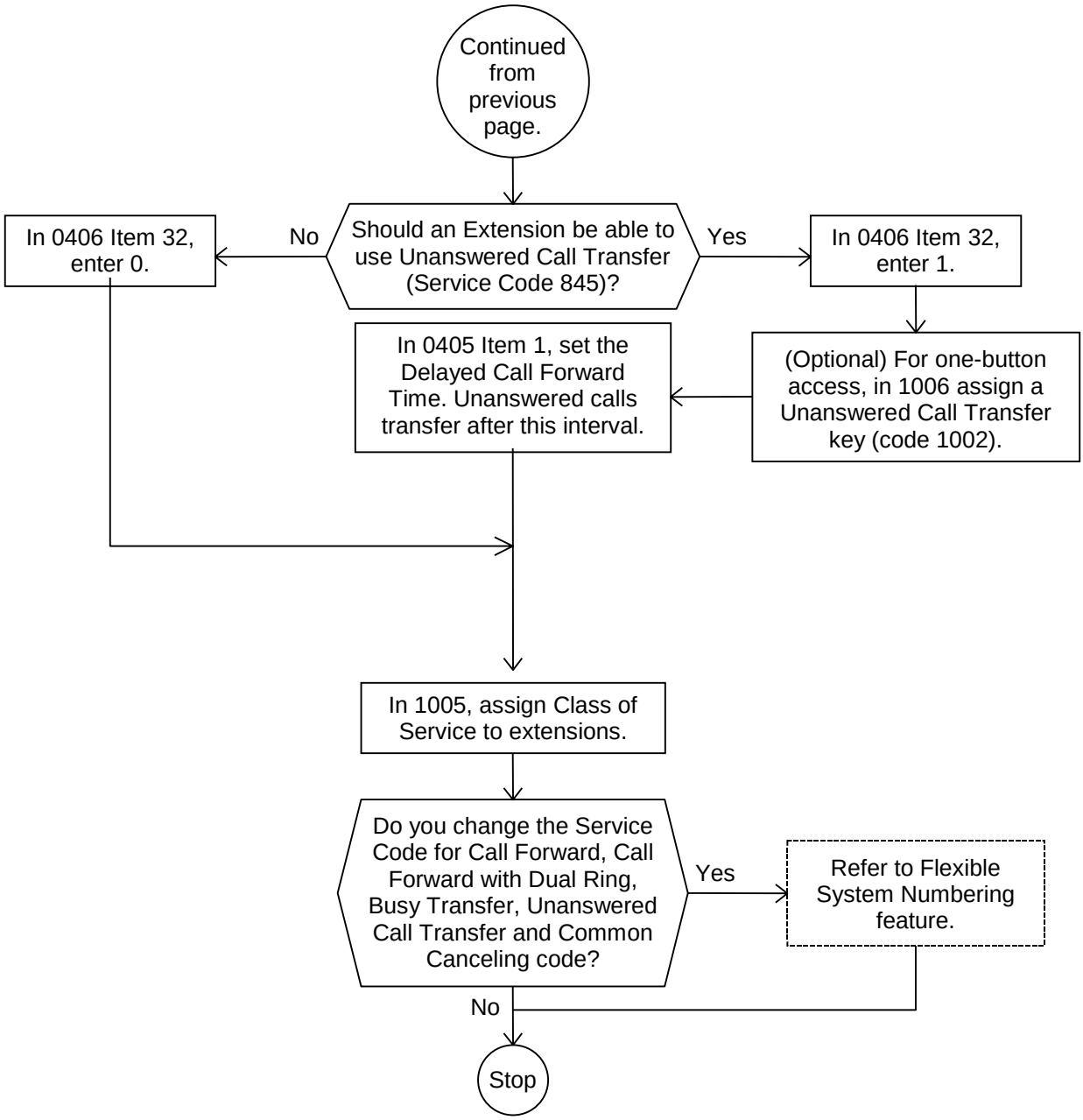
Call Forward (Cont'd)

Programming


Start
Should extension be able to use Call Forward (Service Code 848)?
No
In 0406 Item 30, enter 0.
Yes
In 0406 Item 30, enter 1.
(Optional) For one-button access, in 1006 assign a Call Forward (code 1055).
Should extension be able to use Call Forward with Dual Ringing (Service Code 842)?
No
In 0406 Item 23, enter 0.
Yes
In 0406 Item 23, enter 1.
(Optional) For one-button access, in 1006 assign a Call Forward with dual Ringing key (code 1000).
Should extension be able to use Busy Transfer (Service Code 843)?
No
In 0406 Item 31, enter 0.
Yes
In 0406 Item 31, enter 1.
(Optional) For one-button access, in 1006 assign a Busy Transfer key (code 1002).
Continued on following page.

Call Forward (Cont'd)

Programming (Cont'd)


Continued from previous page.
Should an Extension be able to use Unanswered Call Transfer (Service Code 845)?
No
Yes
In 0406 Item 32, enter 0.
In 0406 Item 32, enter 1.
(Optional) For one-button access, in 1006 assign a Unanswered Call Transfer key (code 1002).
In 0405 Item 1, set the Delayed Call Forward Time. Unanswered calls transfer after this interval.
In 1005, assign Class of Service to extensions.
Do you change the Service Code for Call Forward, Call Forward with Dual Ring, Busy Transfer, Unanswered Call Transfer and Common Canceling code?
Yes
Refer to Flexible System Numbering feature.
No
Stop

Call Forward (Cont'd)

Programming (Cont'd)

> 0405 – System Timers, Item 1: Delayed Call Forward Time
Set the Delayed Call Forward interval.

> 0406 – COS Options, Item 23: Call Transferring with both rings
In an extension's Class of Service, enable (1) or disable (0) an extension's ability to set Call Forward with Both Ringing (Service Code 842).

> 0406 – COS Options, Item 31: Call Transfer When Busy
In an extension's Class of Service, enable (1) or disable (0) an extension's ability to set Call Forward when Busy (Service Code 843).

> 0406 – COS Options, Item 32: Unanswered Call Transfer
In an extension's Class of Service, enable (1) or disable (0) an extension's ability to set Call Forward when Unanswered (Service Code 845).

> 0511 – Service Code Setup, Part A
Assign a service code for:
- Call Forward with Both Rings (Item 3: dial 842)
- Unanswered Call Transfer (Item 62: dial 845)
- Busy Transfer (Item 63: dial 843)
- Call Forward (Item 85 dial 848)

> 0514 – Service Code Setup, Part B
Assign a service code for Common Canceling Service Code.
(Item 10: dial 720)

> 1005 – Class of Service for Extension
Assign a Class of Service (1-10) to an extension.

> 1006 – Programming Function Keys
Assign a function key for:
- Call Forward with Both Ringing (code 1000)
- Busy Transfer (code 1002)
- Unanswered Call Transfer (code 1003)
- Call Forward (code 1055)

Call Forward (Cont'd)

Related Features

Group Hunt

An extension user cannot forward their calls to a Department number.

Do Not Disturb

If an extension user activates DND option 4, the system prevents other extensions from forwarding calls to them. If an extension already receiving forwarded calls activates DND option 4, callers to the forwarded extension hear DND tone.

Programmable Function Key

Function keys simplify Call Forward operation.

Operation

<Key Telephone>

To activate or cancel Call Forward:

1. Press idle CL key.
2. Dial Call Forward code:
   842 ( ) for Call Forward with Dial Ringing
   Transfers ring destination immediately
   Intercom calls ring both extensions
   Calls do not forward when extension busy
   843 ( ) for Busy Transfer
   845 ( ) for unanswered Call Transfer
   848 ( ) for Call Forward
   OR
   Press Call Forward key.
   PCM 1006 or 851: code 1000 for Forward with Dial Ringing.
   PGM 1006 or 851; code 1002 for Busy Transfer.
   PGM 1006 or 851: code 1003 for Unanswered transfer.
   PCM 1006 or 851: code 1055 for Forward All Calls Immediately.
   When you enable Call Forward, your Call Forward key flashes slowly.
3. Dial 1 plus extension to enable; dial 0 to disable.
   Your Call Forward destination must be an installed extension. It cannot be a Department Group pilot number.
   Once you activate Call Forward, only your Call Forward destination can place an Intercom call to you.
4. Press SPK to hang up.

Call Forward (Cont'd)

Operation (Cont'd)

<Key Telephone> (Cont'd)

To cancel Call Forward:

1. Press idle CL key.
2. Dial 720( ). (Common Canceling Service Code)
3. Press SPK to hang up.

When you cancel Call Forward by dial 720, these features are canceled at same time:
Alarm Clock, DND, Repeat Dial, Message Waiting, Head-set Mode and Text Message

<Single Line Telephone>

To activate or cancel Call Forward:

1. Off hook.
2. Dial Call Forward code:
   - 842 ( ) for Call Forward with Dual Ringing
     Transfers ring destination immediately
     Intercom calls ring both extensions
     Calls do not forward when extension busy
   - 843 ( ) for Busy Transfer
   - 845 ( ) for unanswered Call Transfer
   - 848 ( ) for Call Forward
3. Dial 1 plus extension to enable; dial 0 to disable.
   (Confirmation tone is heard)

   Your Call Forward destination must be an installed extension. It cannot be a Department Group pilot number.

   One you activate Call Forward, only your Call Forward destination can place an Intercom call to you.
4. On hook.

To cancel Call Forward:

1. Off hook.
2. Dial 720( ). (Common Canceling Service Code)
3. On hook.

When you cancel Call Forward by dial 720, these features are canceled at same time:
Alarm Clock, DND, Repeat Dial, Message Waiting, Head-set Mode and Text Message

Call Forward with Personal Message (VAU)

Description

Call Forward with Personal Messages permits an extension user to redirect their call to another extension with message.

There are four types of Call forward with personal message:

- **Call Forward**
  All calls forward immediately to destination, and only the destination rings.

- **Busy Transfer**
  Call forward only when the extension is busy.

- **Unanswered Call Transfer**
  Calls forward only if the extension is unanswered in certain period (Ring No Answer).

- **Busy or Unanswered Call Transfer**
  Calls forward when the extension is busy or unanswered.

Conditions

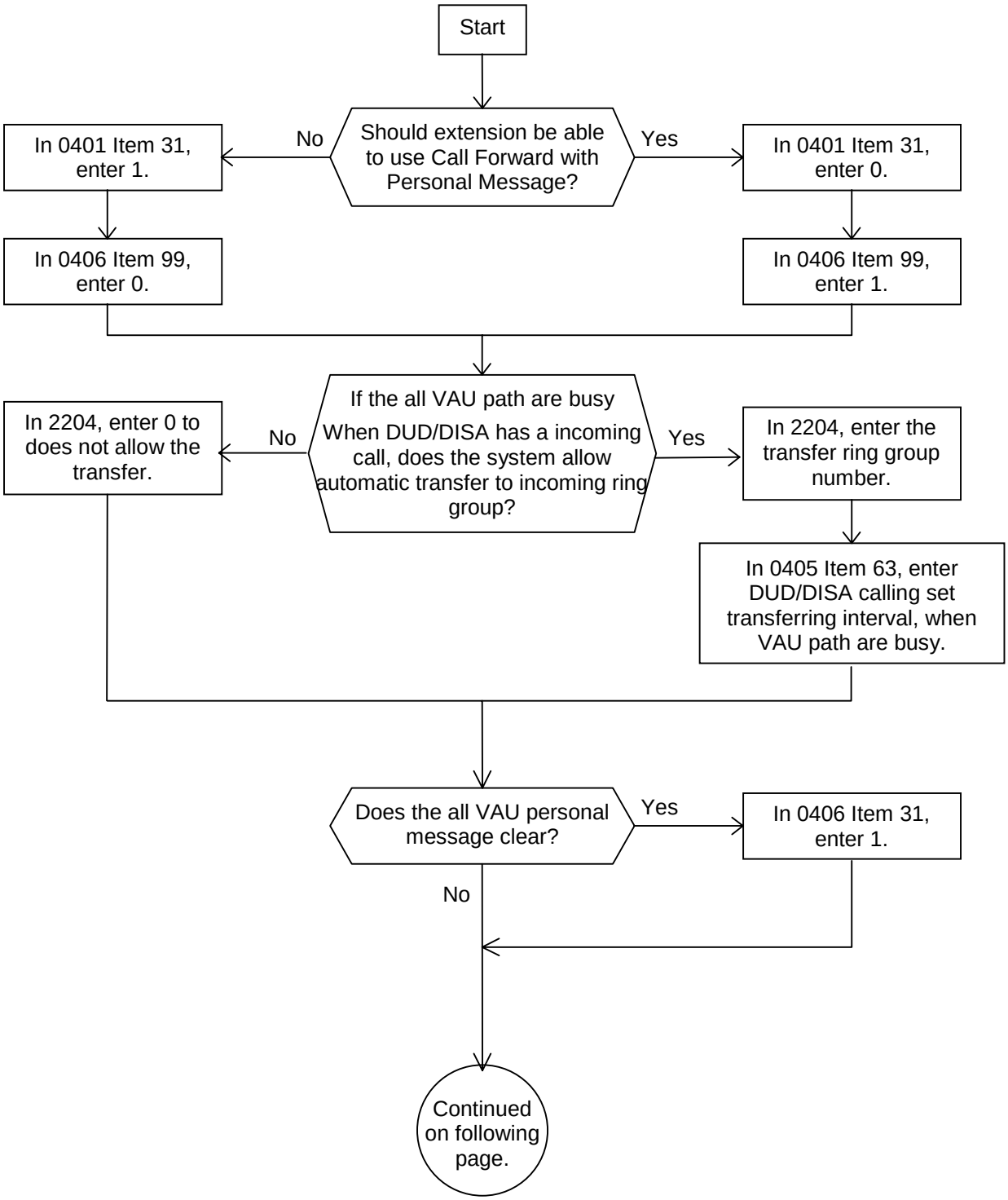
This feature is available for key telephone and single line telephone.

Options

DX2E-VAU-A module
VAU Expansion Board

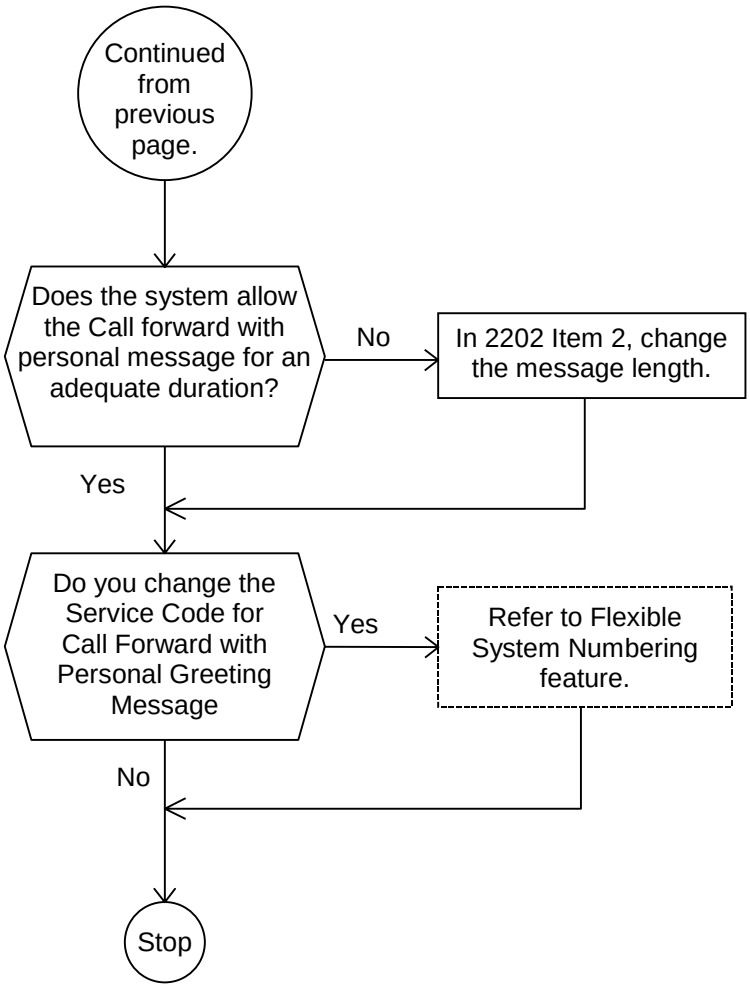
Call Forward with Personal Message (VAU)

Programming


Start
Should extension be able to use Call Forward with Personal Message?
No
Yes
In 0401 Item 31, enter 1.
In 0401 Item 31, enter 0.
In 0406 Item 99, enter 0.
In 0406 Item 99, enter 1.
If the all VAU path are busy
When DUD/DISA has a incoming call, does the system allow automatic transfer to incoming ring group?
No
Yes
In 2204, enter 0 to does not allow the transfer.
In 2204, enter the transfer ring group number.
In 0405 Item 63, enter DUD/DISA calling set transferring interval, when VAU path are busy.
Does the all VAU personal message clear?
Yes
No
In 0406 Item 31, enter 1.
Continued on following page.

Call Forward with Personal Message (VAU)

Programming (Cont'd)


Continued from previous page.
Does the system allow the Call forward with personal message for an adequate duration?
No
In 2202 Item 2, change the message length.
Yes
Do you change the Service Code for Call Forward with Personal Greeting Message
Yes
Refer to Flexible System Numbering feature.
No
Stop

Call Forward with Personal Message (VAU) (Cont'd)

Programming (Cont'd)

> 0401 - System Options, Part A, Item 31: VAU fixed message
Set the use (0) or not use (1) VAU fixed message for VAU feature.

> 0405 - System Timers, Part A, Item 63: VAU no-answer time (VAU)
Set the waiting time (0 - 64800 seconds) of automatic answer for incoming call, when All VAU paths are busy. If all VAU paths are busy while waiting time, incoming call transfer to transferring ring group (CMD 2204).

> 0406 - COS Options, Item 99: Personal greeting message (VAU)
In an extension's Class of Service, enable (1) or disable (0) an extension's ability to use the Call forward with personal message.

> 0514 - Service Code Setup, Part B,
Item 3: Call Forward with personal greeting (VAU)
Assign a service code for Call Forward with personal greeting (VAU).

> 2201 - VAU Reset
When you use to erase the VAU Personal Message and VAU Message.

> 2202 - Message Length Assignment for VAU
Set the maximum length of message length for VAU Message and Personal Message.

> 2204 - Transfer Ring Group Setup When VAU No Answer
Assign a transfer ring group number, when VAU path are busy for DUD/DISA caller.

Related Features

Preview Dial

When you use VAU Adaptor, you can use Preview Dial feature after dial *.

Call Forward with Personal Message (VAU) (Cont'd)

Operation

<Key Telephone>

To activate the Call forward with personal message:

1. Press idle CL key.
2. Dial 713( )
3. Hear "Please start recording <beep>".
4. Recording Personal Greeting Message.
5. Dials the destination extension number.
6. Dial Call Forward condition:
   1: Busy
   2: No-answer
   3: Busy/No-answer
   4: Always
7. Dial forwarding type:
   1: All incoming calls
   2: Trunk incoming calls only
   3: Extension incoming calls only
8. Press SPK to hang up (finish).
   OR
   Dial 3 (erase: 5-a of "To operate").
   OR
   Dial 5 (listen: 5-b of "To operate").
   OR
   Dial 7 (re-record: 5-c of "To operate").

Call forward with personal message (VAU) (Cont'd)

Operation (Cont'd)

<Key Telephone> <Cont'd>

To operate the Call forward with personal message:

1. Press idle CL key.
2. Dial 713( ).
3. Hear "To re-record dial 7, to listen dial 5, to erase dial 3".

4-a. Dial 3 (erase).

5-a. Press SPK to hang up (Finish).
OR
Dial 5 (listen: go to 5-b).
OR
Dial 7 (re-record: go to 5-c).

4-b. Dial 5 (listen).

5-b. Hear recorded Personal Greeting Message.

6-b. Press SPK to hang up (Finish).
OR
Dial 3 (erase: go to 5-a).
OR
Dial 7 (re-record: go to 5-c).

4-c. Dial 7 (re-record)

5-c. Hear "Please start recording".

6-c. Recording Personal Greeting Message.

7-c. Dial the destination extension number.

8-c. Dial Call Forward condition :
1: Busy
2: No-answer
3: Busy/No-answer
4: Always

9-c. Dial forwarding type :
1: All incoming calls
2: Trunk incoming calls only
3: Extension incoming calls only

10-c. Press SPK to hang up (Finish).
OR
Dial 3 (erase: go to 5-a).
OR
Dial 5 (listen: go to 5-b).

Call forward with personal message (VAU) (Cont'd)

Operation (Cont'd)

<Single Line Telephone>

To activate the Call forward with personal message:

1. Off hook.
2. Dial 713( )
3. Hear "Please start recording <beep>".
4. Recording Personal Greeting Message.
5. Dial the destination extension number.
6. Dial Call Forward condition :
   1: Busy
   2: No-answer
   3: Busy/No-answer
   4: Always
7. Dial forwarding type :
   1: All incoming calls
   2: Trunk incoming calls only
   3: Extension incoming calls only
8. On hook.

To operate the Call forward with personal message:

1. Off hook.
2. Dial 713( ).
3. Hear "To re-record dial 7, to listen dial 5, to erase dial 3".

4-a. Dial 3 (erase).

5-a. On hook (Finish).
   OR
   Dial 5 (listen: go to 5-b).
   OR
   Dial 7 (re-record: go to 5-c).

4-b. Dial 5 (listen).

5-b. Hear recorded Personal Greeting Message.

6-b. On hook (Finish).
   OR
   Dial 3 (erase: go to 5-a).
   OR
   Dial 7 (re-record: go to 5-c).

Call forward with personal message (VAU) (Cont'd)

Operation (Cont'd)

<Single Line Telephone> (Cont'd)

To operate the Call forward with personal message: (Cont'd)

4-c. Dial 7 (re-record)
5-c. Hear "Please start recording <beep>".
6-c. Recording Personal Message.
7-c. Dials destination extension number.
8-c. Dial Call Forward condition :
  1 : Busy
  2 : No-answer
  3: Busy/No-answer
  4 : Always
9-c. Dial forwarding type :
  1 : All incoming calls
  2 : Trunk incoming calls only
  3 : Extension incoming calls only
10-c. On hook (Finish).
  OR
  Dial 3 (erase: go to 5-a).
  OR
  Dial 5 (listen: go to 5-b).

Call Pickup

Description

Call Pickup allows an extension user to answer a call ringing an extension in a Pickup Group. This permits co-workers in the same work area to easily answer each other's calls. The user can intercept the ringing call by dialing a code or pressing a programmed Call Pickup key.

With Call Pickup, a user can intercept the following types of calls:

Feature Description	SVC CODE	DIAL	ICM	ICM CFWD	NORMAL TRK RING	TRK CFWD	TRFR
Direct Call Pickup	856		X	X		X	X
Call Pickup	867		X	X	X	X	X
Call Pickup for specified group	868	GR#	X	X	X	X	X
Call Pickup for another group	869		X	X	X	X	X
Direct extension call pickup	715	EX#	X	X	X	X	X

SVC CODE: Service Code, ICM CFWD: Intercom Call Forward
TRK RING: Trunk Ring,
TRK CFWD: Trunk Call Forward,
TRFR: Transfer GR#: Group Number, EX#: Extension Number

Conditions

This feature available for Key Telephone and Single Line Telephone.

Call Pickup (Cont'd)

Default Setting

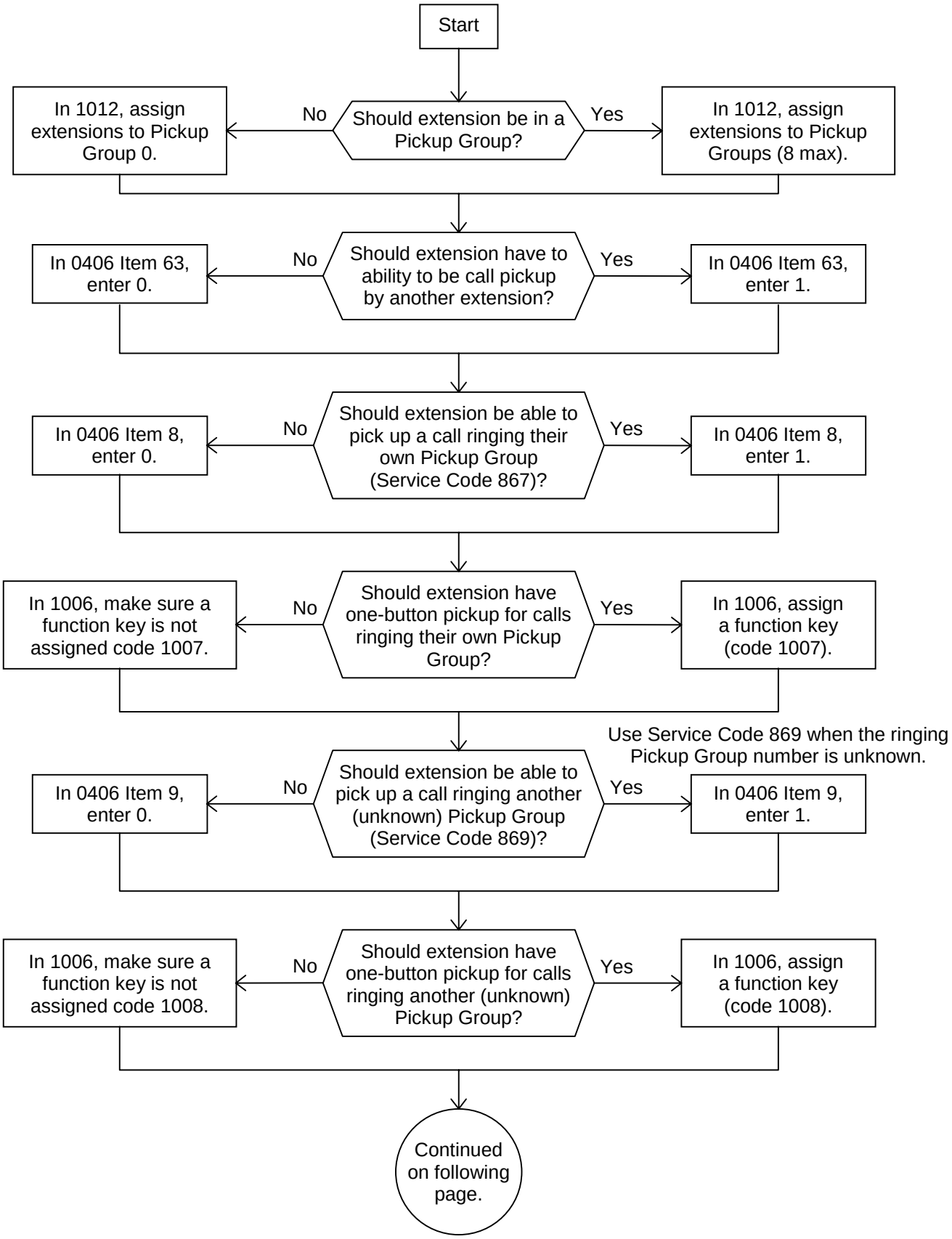
- An extension's Class of Service permits using Service Codes 715, 867, 868, 869 and 856.
- An extension's Class of Service causes telephone display to show the pickup group intercepted, not the Trunk.
- To Group Call Pickup keys assigned.
- All extensions are in pickup group 1.
- Service Code of Call Pickup of same call pickup group is dial 867.
- Service Code of Call Pickup for another group is dial 869.
- Service Code of Call Pickup for specified group is dial 868.
- Service Code of Direct call pickup - own group is dial 856.
- Service Code of Direct extension call pickup is dial 715.

Options

None

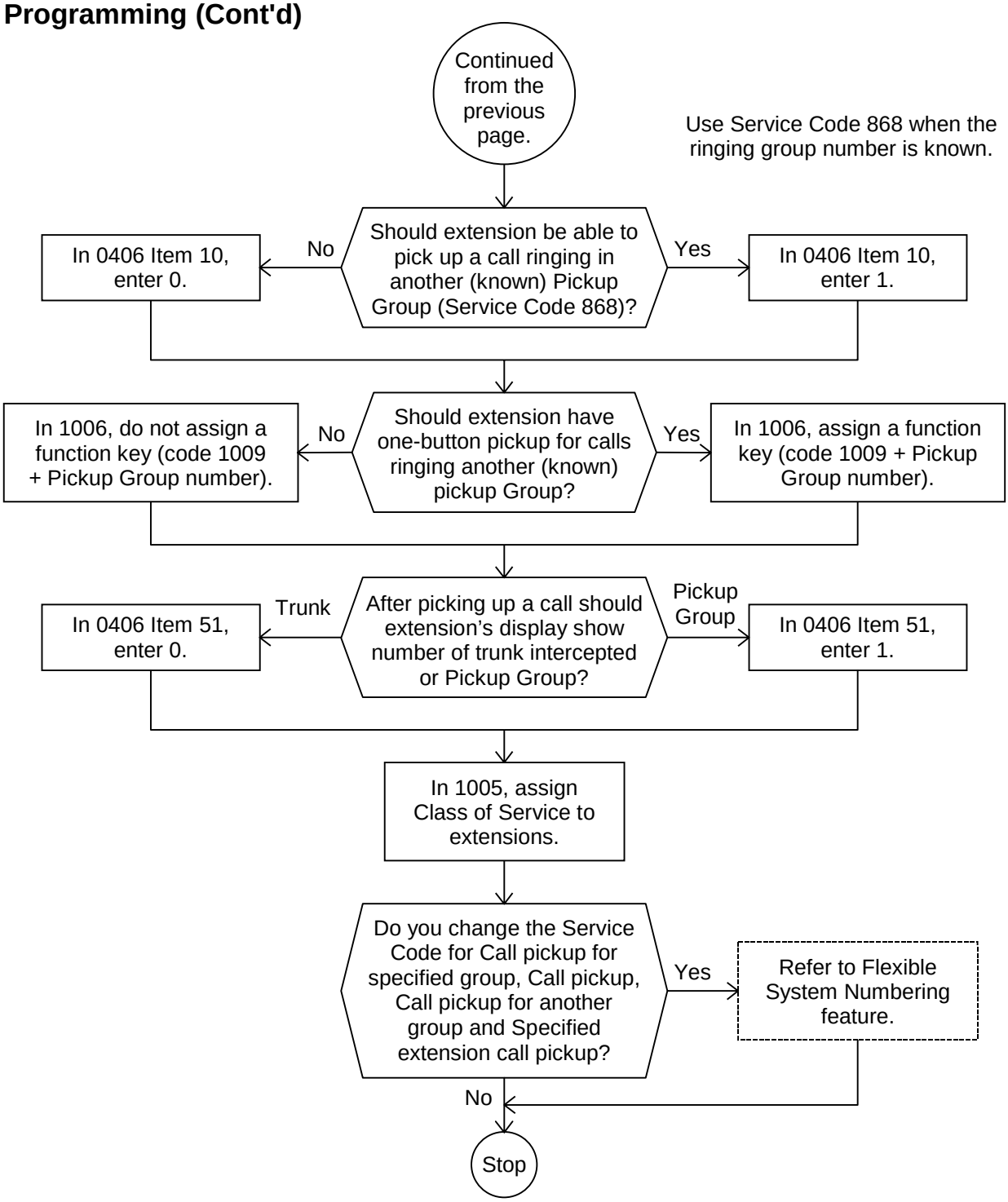
Call Pickup (Cont'd)

Programming


Start
Should extension be in a Pickup Group?
No
In 1012, assign extensions to Pickup Group 0.
Yes
In 1012, assign extensions to Pickup Groups (8 max).
Should extension have to ability to be call pickup by another extension?
No
In 0406 Item 63, enter 0.
Yes
In 0406 Item 63, enter 1.
Should extension be able to pick up a call ringing their own Pickup Group (Service Code 867)?
No
In 0406 Item 8, enter 0.
Yes
In 0406 Item 8, enter 1.
Should extension have one-button pickup for calls ringing their own Pickup Group?
No
In 1006, make sure a function key is not assigned code 1007.
Yes
In 1006, assign a function key (code 1007).
Use Service Code 869 when the ringing Pickup Group number is unknown.
Should extension be able to pick up a call ringing another (unknown) Pickup Group (Service Code 869)?
No
In 0406 Item 9, enter 0.
Yes
In 0406 Item 9, enter 1.
Should extension have one-button pickup for calls ringing another (unknown) Pickup Group?
No
In 1006, make sure a function key is not assigned code 1008.
Yes
In 1006, assign a function key (code 1008).
Continued on following page.

Call Pickup (Cont'd)

Programming (Cont'd)


Continued from the previous page.
Use Service Code 868 when the ringing group number is known.
Should extension be able to pick up a call ringing in another (known) Pickup Group (Service Code 868)?
No
In 0406 Item 10, enter 0.
Yes
In 0406 Item 10, enter 1.
Should extension have one-button pickup for calls ringing another (known) pickup Group?
No
In 1006, do not assign a function key (code 1009 + Pickup Group number).
Yes
In 1006, assign a function key (code 1009 + Pickup Group number).
After picking up a call should extension's display show number of trunk intercepted or Pickup Group?
Trunk
In 0406 Item 51, enter 0.
Pickup Group
In 0406 Item 51, enter 1.
In 1005, assign Class of Service to extensions.
Do you change the Service Code for Call pickup for specified group, Call pickup, Call pickup for another group and Specified extension call pickup?
Yes
Refer to Flexible System Numbering feature.
No
Stop

Call Pickup (Cont'd)

Programming (Cont'd)

> 0406 – COS Options, Item 8: Call Pick Up
  In an extension's Class of Service, enable (1) or disable (0) an extension's ability to pick up calls ringing their pickup group (Service Code 867).

> 0406 – COS Options, Item 9: Call Pick up for another group
  In an extension's Class of Service, enable (1) or disable (0) an extension's ability to pickup calls ringing telephones that are not in their pickup group (Service Code 869).

> 0406 – COS Options, Item 10: Call Pick up for specified group
  In an extension's Class of Service, enable (1) or disable (0) an extension's ability to pickup calls ringing a specific group (Service Code 869).

> 0406 – COS Options, Item 51: Call Pick up information display
  In an extension's Class of Service, enable (1) or disable (0) an extension's Call Pickup display. If disabled, extension's display shows the number of the Trunk intercepted, not the pickup group.

> 0406 – COS Options, Item 63: Call Pick Upped
  In an extension's Class of Service, enable (1) or disable (0) an extension's ability to be Call Pick Upped.

> 0511 – Service Code Setup, Part A
  Item 8: Call pick up for specified group
  Assign service code of call pick up for specified group.

> 0511 – Service Code Setup, Part A Item 16: Call pick up
  Assign service code of call pick up.

> 0511 – Service Code Setup, Part A
  Item 17: Call pick up for another group
  Assign service code of call pick up for another group.

> 0511 – Service Code Setup, Part A Item 95: Direct call pick up
  Assign service code of direct call pick up.

> 0514 – Service Code Setup, Part B
  Item 5: Direct extension call pickup
  Assign service code of direct extension call pickup.

> 1005 – Class of Service for Extension
  Assign a Class Of Service (1-10) to an extension.

Call Pickup (Cont'd)

Programming (Cont'd)

> 1006 – Programming Function Keys
Assign Call Pickup keys:
Code 1007 for an extension's own Pickup Group (Service Code 867)
Code 1008 for a phone ringing in another Pickup Group
(Service Code 869)
- used when the caller doesn't know the group number

Code 1009 (+Group Number) for a phone ringing in another specific Pickup Group (Service Code 868)

> 1012 – Call Pickup Group
Assign extensions to call pickup groups far each extension port.

Related Features

None

Operation

<Key Telephone>

To answer a call ringing another phone in your Pickup Group:

1. Press idle CL key.
2. Press Group Call Pickup key (PGM 1006 or SC 851: 1007).
   OR
   Dial 867( ).

To answer a call ringing a phone in another Pickup Group when you don't know the group number:

1. Press idle CL key.
2. Press Group Call Pickup key (PGM 1006 or SC 851: 1008).
   OR
   Dial 869( ).

To answer a call ringing a phone in Pickup Specified Group:

1. Press idle CL key.
2. Press Group Call Pickup key (PGM 1006 or SC 851: 1009).
   OR
   Dial 868( ) and the group number (1-8).

To answer a call ringing a phone without incoming Trunk in your Pickup Group:

1. Press idle CL key.
2. Dial 856( ).

Call Pickup (Cont'd)

Operation (Cont'd)

<Key Telephone> (Cont'd)

To answer a call ringing a specified extension:

1. Press idle CL key.
2. Dial 715 ( ) and specified extension number.

<Single Line Telephone>

To answer a call ringing another phone in your Pickup Group:

1. Off hook.
2. Dial 867( ).

To answer a call ringing a phone in another Pickup Group when you don't know the group number:

1. Off hook.
2. Dial 869( ).

To answer a call ringing a phone in Pickup Specified Group:

1. Off hook.
2. Dial 868( ) and the group number (1-8).

To answer a call ringing a phone without incoming Trunk in your Pickup Group:

1. Off hook.
2. Dial 856( ).

To answer a call ringing a specified extension:

1. Off hook.
2. Dial 715 ( ) and specified extension number.

Call Timer

Description

Call Timer lets a keyset user time their trunk calls on the telephone display. This helps users that must keep track of their time on the phone. For incoming trunk calls, the Call Timer begins as soon as the user answers the call. For outgoing trunk calls, the Call Timer starts about 10 seconds (PGM 0405 Item 30) after the user dials the last digit. However, if Polarity Reverse Signal is detected from the network side, then the Call Timer starts immediately.

Conditions

This feature available for key telephone with display.

Default Setting

An extension's Class of Service allows using the Call Timer.

Options

None

Programming

> 0406 – COS Options, Item 46: Call Duration display

In an extension's Class of Service, enable (1) or disable (0) an extension's ability to use the Call Timer.

> 0901 – Basic Trunk Port Setup, Item24: Answering Condition

Enter 0 to start the Call Timer only when Polarity Reverse Signal is detected from network. Enter 1 to start call timer either trunk inter-digit time over or the reception of Polarity Reverse Signal whichever comes faster.

> 1005 – Class of Service for Extension

Assign a Class of Service (1-10) to an extension.

Related Features

Alphanumeric Display

Disabling the trunk name seizes display (Program 0406: Item 37=0) also disables the Call Timer.

Operation

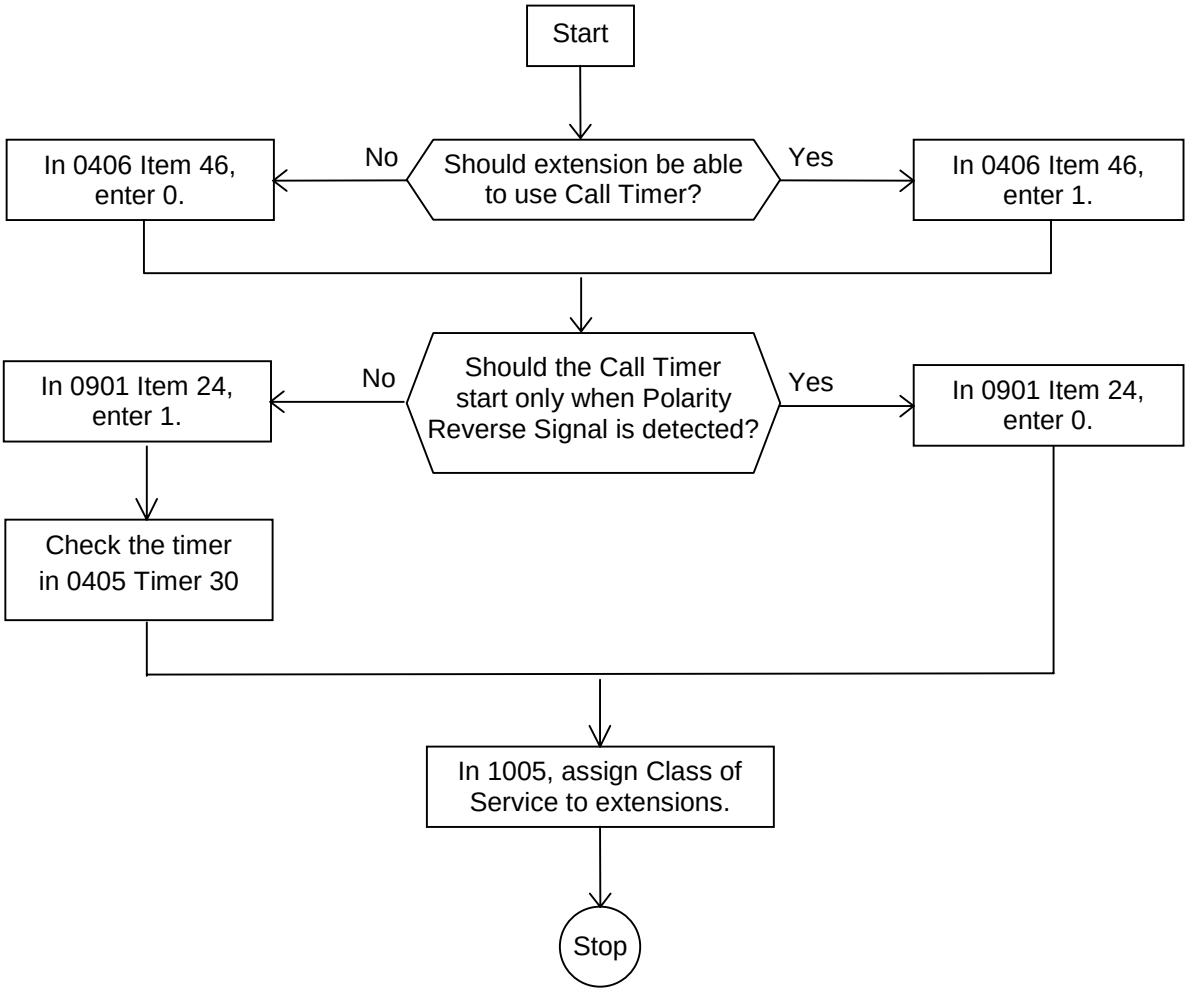
<Key Telephone with Display>

To time your trunk calls:

1. Place trunk call. The timer *starts automatically*.

Call Timer (Cont'd)

Programming (Cont'd)


Start
Should extension be able to use Call Timer?
No
In 0406 Item 46, enter 0.
Yes
In 0406 Item 46, enter 1.
Should the Call Timer start only when Polarity Reverse Signal is detected?
No
In 0901 Item 24, enter 1.
Yes
In 0901 Item 24, enter 0.
Check the timer in 0405 Timer 30
In 1005, assign Class of Service to extensions.
Stop

Camp On

Description

Camp On / Callback – Extension

When an extension user calls a busy extension, the user may leave a Callback request for a return call. The user does not have to repeatedly call the busy extension back, hoping to find it idle or automatic recall.

The system processes Camp On/Callback requests as follows:

1. Caller at extension A leaves a Camp On/Callback at busy extension B.

   Caller can place or answer additional calls in the mean time.

2. When extension B becomes idle, the system rings extension A. This is the Callback ring.
3. Once caller A answers the Callback ring, the system rings (formerly busy) extension B.

   If caller A doesn't answer the Callback ring, the system cancels the Camp On/Callback.

4. As soon as caller B answers, the system sets up an Intercom call between A and B.

Callback Automatic Answer determines how an extension user answers the Callback ring.

When Callback Automatic Answer Callback is enabled, a user answers the Callback ring when they lift the handset. When Callback Automatic Answer is disabled, the user must press the ringing CL key appearance to answer the Callback ring.

Camp On / Callback – Trunk

Callback – Trunk permits an extension user to queue (wait in line) on hook for a busy Trunk or Trunk group to become free. The system recalls the queued extension as soon as the Trunk is available. The user does not have to manually retry their call later.
Camp On/Callback – Trunk lets the caller know when the call can go through. If the extension user does not answer the Camp On/Callback – Trunk ring, the system cancels the queue request.

With Camp On – Trunk, an extension user can queue (wait in line) off hook for a busy Trunk or Trunk group to become free. The call goes through immediately when the Trunk becomes free. As with Camp On – Trunk, the user does not have to manually retry their call later.

Any number of extensions may simultaneously queue or Camp On for the same Trunk or Trunk group. When a Trunk becomes free, the system connects the extensions in the order that the requests were left.

Conditions

This feature available for key telephone and single line telephone.

(An extension can leave only one Callback request at a time)

Camp On (Cont'd)

Default Setting

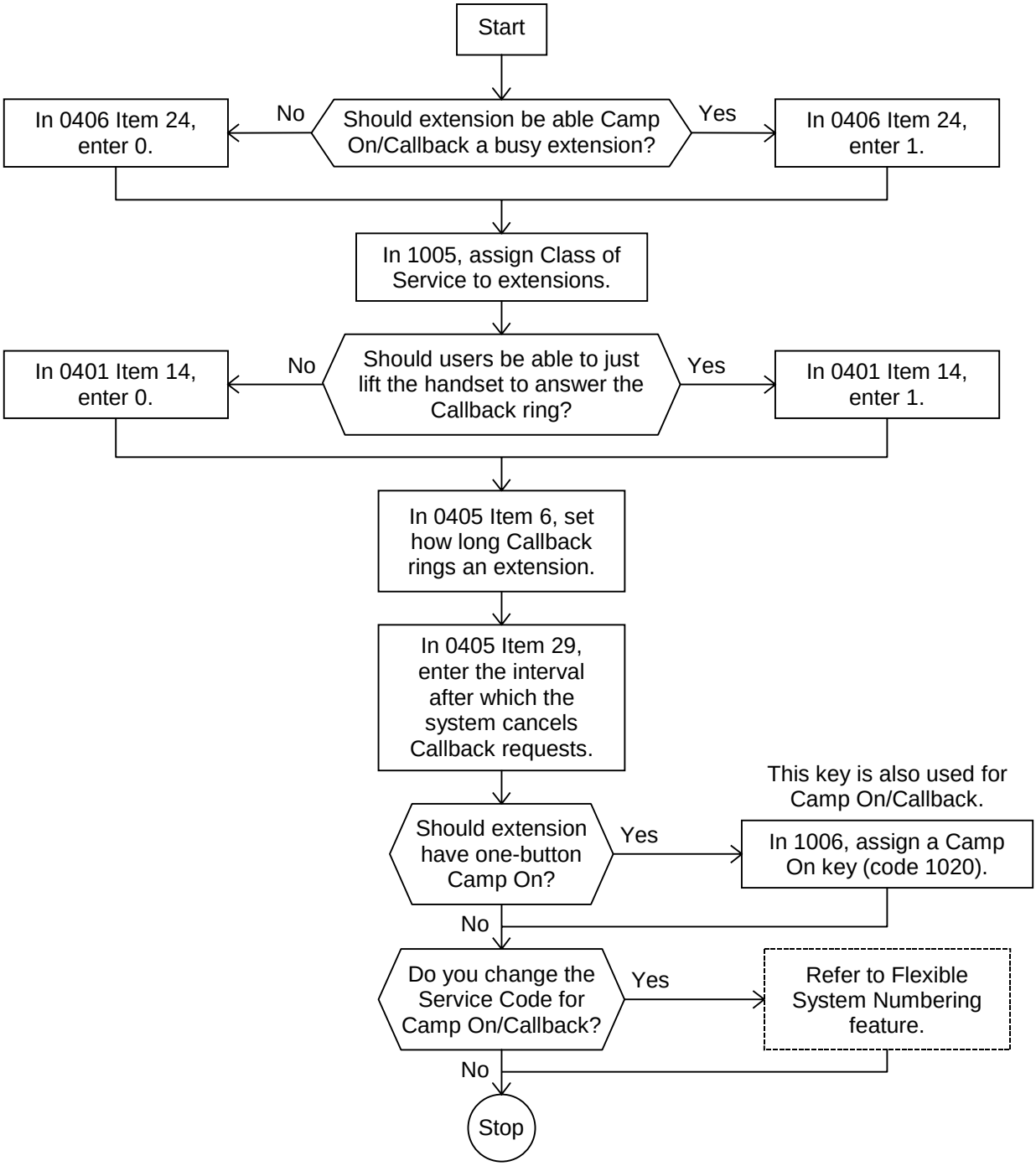
- Calling Automatic Answer enabled.
- Callback ring is 15 seconds long.
- The system cancels Callback requests after 64800 seconds.
- Callback key not assigned.
- An extension's Class of Service allows Camp On/Callback.
- Service Code of Camp On/Callback is dial 850.
- Service Code of Cancel Camp On/Callback is 870.

Options

None

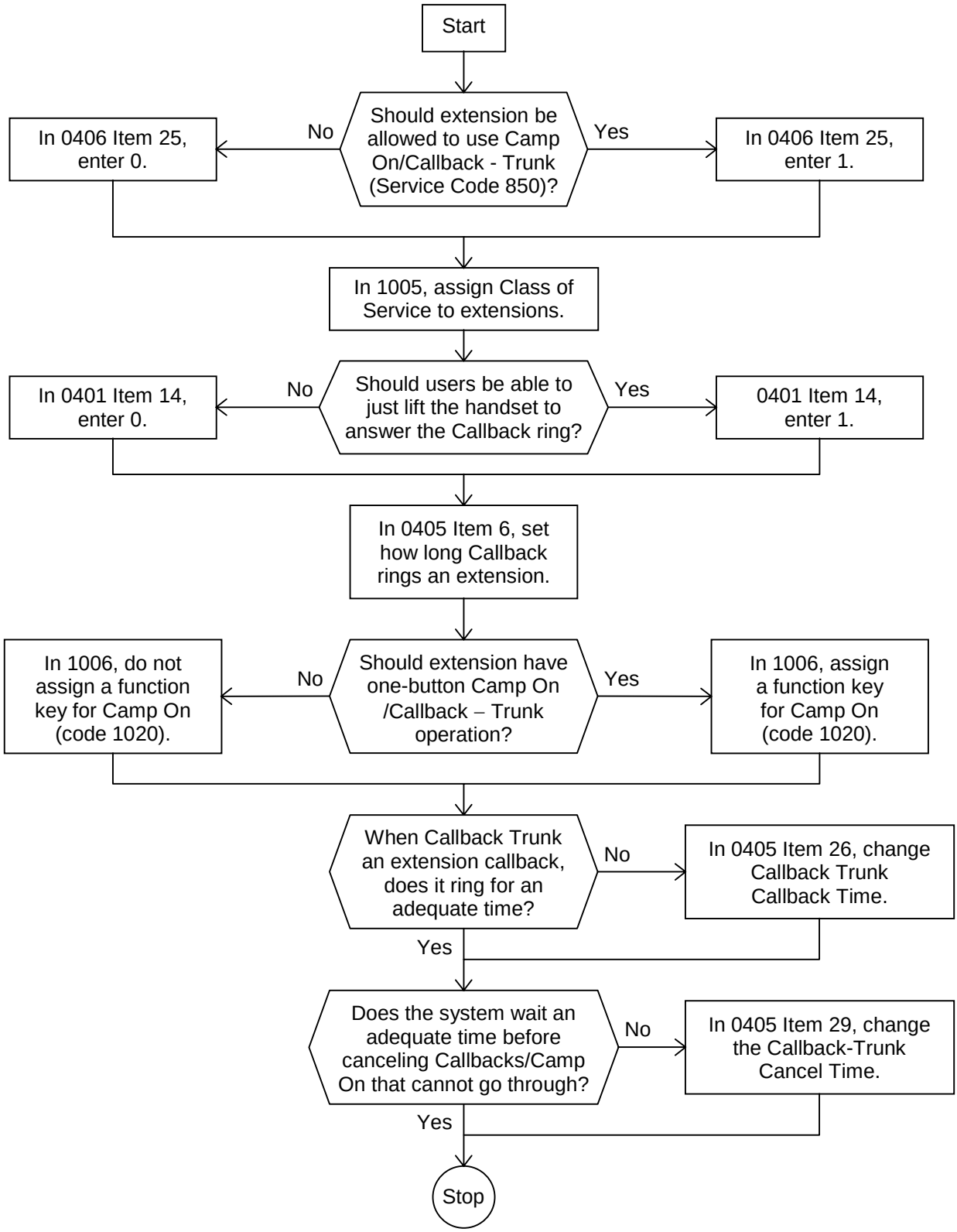
Camp On (Cont'd)

Programming (for Callback-Extension)


Start
Should extension be able Camp On/Callback a busy extension?
No
In 0406 Item 24, enter 0.
Yes
In 0406 Item 24, enter 1.
In 1005, assign Class of Service to extensions.
Should users be able to just lift the handset to answer the Callback ring?
No
In 0401 Item 14, enter 0.
Yes
In 0401 Item 14, enter 1.
In 0405 Item 6, set how long Callback rings an extension.
In 0405 Item 29, enter the interval after which the system cancels Callback requests.
This key is also used for Camp On/Callback.
Should extension have one-button Camp On?
Yes
In 1006, assign a Camp On key (code 1020).
No
Do you change the Service Code for Camp On/Callback?
Yes
Refer to Flexible System Numbering feature.
No
Stop

Camp On (Cont'd)

Programming (for Callback-Trunk) (Cont'd)


Start
Should extension be allowed to use Camp On/Callback - Trunk (Service Code 850)?
No
Yes
In 0406 Item 25, enter 0.
In 0406 Item 25, enter 1.
In 1005, assign Class of Service to extensions.
Should users be able to just lift the handset to answer the Callback ring?
No
Yes
In 0401 Item 14, enter 0.
0401 Item 14, enter 1.
In 0405 Item 6, set how long Callback rings an extension.
Should extension have one-button Camp On /Callback – Trunk operation?
No
Yes
In 1006, do not assign a function key for Camp On (code 1020).
In 1006, assign a function key for Camp On (code 1020).
When Callback Trunk an extension callback, does it ring for an adequate time?
No
Yes
In 0405 Item 26, change Callback Trunk Callback Time.
Does the system wait an adequate time before canceling Callbacks/Camp On that cannot go through?
No
Yes
In 0405 Item 29, change the Callback-Trunk Cancel Time.
Stop

Camp On (Cont'd)

Programming (Cont'd)

> 0401 – System Options, Part A, Item 14: Call-Back automatic answer
Enable (1) or disable (0) callback Automatic Answer.

> 0405 – System Timers, Item 6: callback ring duration timer Set the duration of the callback ring (0-64800 seconds).

> 0405 – System Timers, Item 26: Camp-on Trunk callback time
Set the Camp On – Trunk Callback time (0-648000 seconds). Camp On Trunk Callback ring an extension for this interval.

> 0405 – System Timers, Item 29: Camp-On Cancel Time
The system cancels callback and Trunk Queuing requests after this interval (0-64800 seconds).

> 0406 – COS Options, Item 24: Camp On Extension.
In an extension's Class of Service, enable (1) or disable (0) an extension's ability to use the Camp On/Callback – Extension.

> 0406 – COS Options, Item 25: Camp-on Trunk
In an extension's Class of Service, enable (1) or disable (0) an extension's ability to use Camp On – Trunk.

> 0511 – Service Code Setup, Part A Item 20: Camp On
Assign a Service Code for Camp On/Callback.

> 0511 – Service Code Setup, Part A Item 21: Cancel Camp On
Assign a Service Code for Cancel Camp on.

> 1005 – Class of Service for Extension
Assign a Class of Service (1-10) to an extension.

> 1006 – Programming Function Keys
Assign a function key for Camp-On (code 1020). This key is also the Camp-On key.

Related Features

Programmable Function Key

Function Keys simplify Callback operation.

Camp On (Cont'd)

Operation

Callback – Extension

<Key Telephone>

To place a Callback – Extension:

1. Call busy extension.
2. Dial 850( ) or press Camp-On key (PGM 1006 or SC 851: 1020).
   (Confirmation tone is heard.)
3. Hang up.
4. Lift handset when busy extension calls you back.

   If you have Callback Automatic Answer, you automatically place a call to the formerly busy extension when you lift the handset. If you don't have Callback Automatic Answer, you must press the ringing CL key appearance to place the call.

To place a Camp On – Extension:

1. Call busy extension.
2. Dial 850( ) or press Camp-On key (PGM 1006 or SC 851: 1020).
   (Confirmation tone is heard.)
3. Do not hang up.

To cancel a Camp On/Callback – Extension:

1. Press idle CL key and Dial 870( ).
   OR
   Press Camp-On key (PGM 1006 or SC 851: 1020).

<Single Line Telephone>

To place a Callback – Extension:

1. Call busy extension.
2. Dial 850( ).
   (Confirmation tone is heard.)
3. Hang up.
4. Lift handset when busy extension calls you back.

Camp On (Cont'd)

Operation (Cont'd)

Callback – Extension

<Single Line Telephone>

To place a Camp On – Extension:

1. Call busy extension.
2. Dial 850( ).
   (Confirmation tone is heard.)
3. Do not hang up.

To cancel a Camp On/Callback – Extension:

1. Off hook.
2. Dial 870( ).
3. On hook.

Callback – Trunk

<Key Telephone>

To queue for a busy Trunk:

1. Try to access busy Trunk.
2. Dial 850( ) or press Camp-On key (PGM 1006 or SC 851: 1020).
   (Confirmation tone is heard.)
3. Hang up to leave a Callback request.
   OR
   Wait off-hook to Camp On to the Trunk.

To answer when Callback – Trunk calls you back:

1. Lift handset.

To cancel a Camp On/Callback – Trunk request:

1. Press idle CL key.
2. Dial 870( ).
   OR
   Press Camp-On key (PGM 1006 or SC 851: 1020).
   (Confirmation tone is heard.)
3. Press SPK to hang up.

Camp On (Cont'd)

Operation (Cont'd)

Callback – Trunk

<Single Line Telephone>

To queue for a busy Trunk:

1. Try to access busy Trunk.
2. Dial 850( ).
   (Confirmation tone is heard.)
3. Hang up to leave a Callback request.
   OR
   Wait off-hook to Camp On to the Trunk.

To answer when Callback – Trunk calls you back:

1. Lift handset.

To cancel a Camp On/Callback – Trunk request:

1. Off hook.
2. Dial 870( ).
   (Confirmation tone is heard.)
3. On hook.

Class of Service

Description

Class of Service (COS) sets various features and dialing options (called items) for extensions. The system allows 10 Classes of Service, and any number of extensions can share the same Class of Service. An extension can have a different Class of Service for each of the Night Service modes. This lets you program a different set of dialing options for daytime operation, night time operation, midnight time option and even during lunch breaks.

Conditions

None

Default Setting

All extensions have Class of Service 1 in all Night Service modes.

See the chart on the next page for the default setting on the individual options.

Options

None

Programming

> 0406 – Class of Service Options
  Set the options in a Class of Service.

> 1005 – Class of Service for Extension
  Assign a Class of Service (1-10) to extension.

Related Features

Night Service

An extension can have a different Class of Service for each service mode

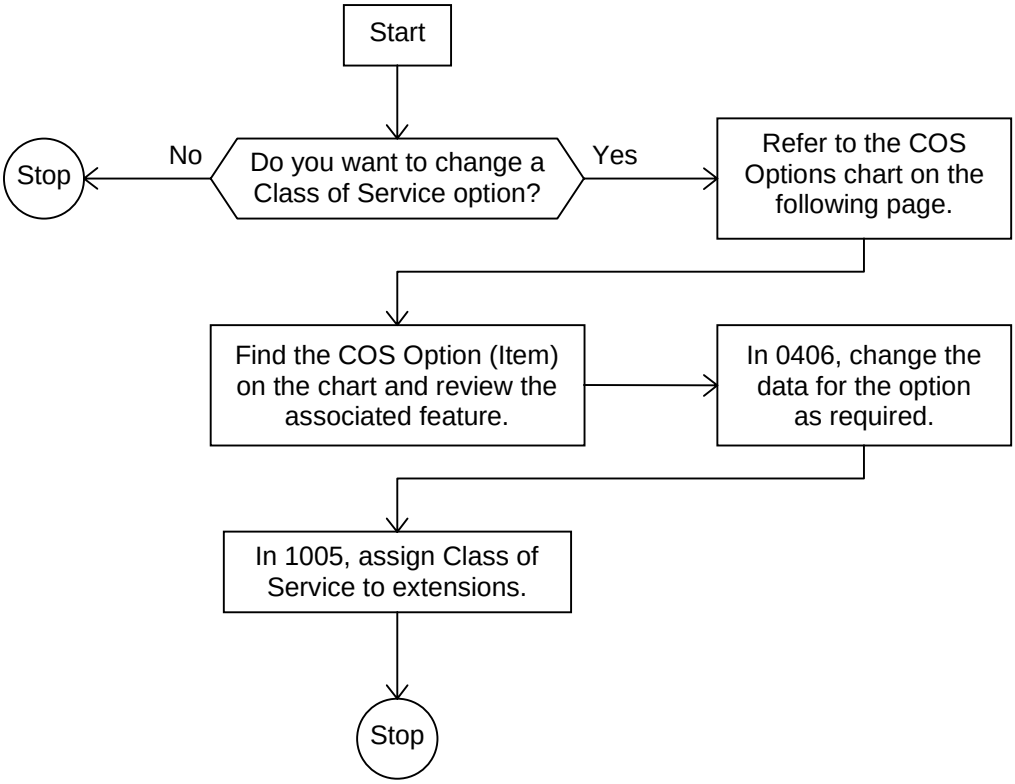
Service mode: Day, Night, Midnight or Rest.

Operation

Refer to the individual features on the next page.

Class of Service (Cont'd)

Programming (Cont'd)


Start
Do you want to change a Class of Service option?
No
Stop
Yes
Refer to the COS Options chart on the following page.
Find the COS Option (Item) on the chart and review the associated feature.
In 0406, change the data for the option as required.
In 1005, assign Class of Service to extensions.
Stop

Class of Service (Cont'd)

Class of Service Options, Program 0406 (Page 1 of 8)

Item	Name	This option...	Is used with...	Default
1	Hook/Flash	On/off Hook/flash for S.L.T.	Hook/Flash	1: on
2	Manual night service switching	On/off an extension's ability to use manual Night Service Switching	Night Service	0: off
3	Long conversation Alarm	On/off the Warning Tone for Long Conversation	Warning Tone for Long Conversation	1: on
4	DND/Call Forward override (Bypass call)	On/off an extension's ability to use Call Forward/DND Override	Call Forward/DND Override	1: on
5	Override	Allows/prevents an Intercom caller from sending off Hook signaling tones to a busy extension	Override	1: on
6	Automatic override	Allows/prevents an extension busy on a call from receiving override	Override	0: off
7	Data privacy	On/off an extension's ability to switch privacy at their extension	Privacy (Data)	1: on
8	Call pink up	On/off Call Pickup for calls ringing an extension's own Pickup Group (Service Code 867)	Call Pickup	1: on
9	Call pick up for another group	On/off Call Pickup for calls ringing outside a group (Service Code 869)	Call Pickup	1: on
10	Call pick up for specified group	On/off Call Pickup for ringing a specified group (Service Code 868)	Call Pickup	1: on
11	Ring inward transfer	On/off an extension's ability to use Ring inward transfer	Transfer	1: on

Note: on → Enable, off → Disable

Class of Service (Cont'd)

Class of Service Options, Program 0406 (Page 2 of 8)

Item	Name	This option...	Is used with...	Default
12	Do not disturb	On/off an extension's ability to use Do Not Disturb	Do Not Disturb	1: on
13	Intercom abandoned call display	On/off an extension's Intercom Abandoned Call Display	Intercom Abandoned Call Display	1: on
14	Meet me answer	On/off an extension's ability to use Meet Me Answer	Conference Meet Me Paging Conference	1: on
15	Message waiting	On/off an extension's ability to leave Message Waiting	Message Waiting	1: on
16	Conference	On/off an extension's ability to initiate a Conference or Meet Me Paging Conference	Conference Meet Me Paging Conference	1: on
17	Privacy Release	On/off an extension's ability to initiate a Privacy Release	Privacy Release	1: on
18	Common/group abbreviated dial registration	On/off an extension's ability to store Abbreviated Dialing numbers	abbreviated Dialing	1: on
19	Common abbreviated dialing	On/off an extension's ability to use Common Abbreviated Dialing	abbreviated Dialing	1: on
20	Group abbreviated dialing	On/off an extension's ability to use Group Abbreviated Dialing	abbreviated Dialing	1: on
21	Department group step call	On/off an extension's ability to use Department Group Step Calling	Department Group Step Calling	1: on
22	External paging	On/off an extension's ability make an External Page	Paging, External	1: on
23	Call Forward-dual ring	On/off an extension's ability active Call Forward with dual ring (Service Code 842)	Call Forward	1: on

Note: on → Enable, off → Disable

Class of Service (Cont'd)

Class of Service Options, Program 0406 (Page 3 of 8)

Item	Name	This option...	Is used with...	Default
24	Camp-on extension	On/off an extension's ability to dial Service Code 850 for a Camp On or Callback	Camp On/ Callback-Extension	1: on
25	Camp-on Trunk	On/off an extension's ability to Camp On to a busy Trunk	Camp On-Trunk	1: on
26	Follow-me	On/off an extension's ability to initiate Follow Me	Follow Me	1: on
27	Alarm clock	On/off an extension's ability to set an alarm	Alarm Clock	1: on
28	-- *Not Used* --			
29	-- *Not Used* --			
30	Call transfer	On/off an extension's ability to use Call Forward	Call Forward	1: on
31	Busy transfer	On/off an extension's ability to use Busy transfer (Service Code 843)	Call Forward	1: on
32	Unanswered call transfer	On/off an extension's ability to use Unanswered call transfer (Service Code 845)	Call Forward	1: on
33	Toll restriction override	On/off an extension's ability to use Toll restriction override	Toll Restriction Override	1: on
34	Transfer without holding	On/off an extension's ability to use Transfer without holding	Transfer	1: on
35	Group hold	On/off an extension's ability to initiate a Group hold	Hold	1: on
36	Group hold answer	On/off an extension's ability to pick up a call on Group hold	Hold	1: on

Note: on → Enable, off → Disable

Class of Service (Cont'd)

Class of Service Options, Program 0406 (Page 4 of 8)

Item	Name	This option...	Is used with...	Default
37	Trunk No. and name display (seizing)	On/off the displaying of a Trunk's name/number when the user seizes the Trunk	Trunk Outgoing Call Name Storing	1: on
38	Trunk No. and name display (incoming)	On/off the displaying of a Trunk's name/number when the Trunk is ringing	Trunk Incoming Call Name Storing	1: on
39	Extension No. and name display (conversation)	On/off the displaying of the incoming Intercom caller's name/number after answer	Intercom Name Storing	1: on
40	Extension No. and name display (incoming)	On/off the pre-answer display of the incoming Intercom caller's name and number	Intercom Name Storing	1: on
41	Intercom hotline	On/off Hotline-Off Hook Access for extensions with this COS	Hot Line-Off Hook Access	0: off
42	Transfer information display	On/off an extension's incoming Transfer pre-answer display	Transfer	1: on
43	*-- Not used --*			
44	Break In Monitor mode	Set the extension's Break In Monitor mode (0 for Break In, 1 for Monitor)	Break In	0: off
45	Changing of music on hold tone	On/off an extension's ability to change the music on hold tone	Music on Hold	0: off
46	Call duration timer	On/off an extension's Call duration timer	Call Timer	1: on
47	Memo dial	On/off an extension's ability to use Memo Dial	Memo Dial	1: on
48	Last number redial	On/off an extension's ability to use Last number redial	Last Number Redial	1: on
49	Saved number redial	On/off an extension's ability to use Save Number Redial	Save Number Redial	1: on
50	Preset dial	On/off an extension's ability to use Preview Dial	Preview Dial	1: on
51	Call pick up information display	On/off an extension's Call Pickup display	Call Pickup	1: on
52	Internal group paging	On/off an extension's ability to use Internal Paging	Paging, Internal	1: on
53	BGM (Back Ground Music)	On/off an extension's ability to turn Background Music on and off (Service Code 825)	Background Music	1: on
54	Room monitoring	On/off an extension's ability to initiate Room Monitor	Room Monitor	0: off

Note: on → Enable, off → Disable

Class of Service (Cont'd)

Class of Service Options, Program 0406 (Page 5 of 8)

Item	Name	This option...	Is used with...	Default
55	Room monitored	On/off an extension's ability to be monitored	Room Monitor	0: off
56	Key touch tone	Allow/prevent and extension from on/off the Key Touch Tone	Key Touch Tone	1: on
57	DTMF signal sending while talking on extension	On/off an extension's ability to use Continued Dialing	Continued Dialing	1: on
58	Connected line identification (COLP)	On/off an extension's ability to indicate COLP information in the LCD	ISDN Capability	0:off
59	Ringing tone Selection	On/off an extension's ability to change the incoming ring tones	Selectable Ring Tones	1: on
60	SLT room monitor	On/off an extension's ability to use room monitor by SLT	Room Monitor	0: off
61	Intercom calls	On/off Intercom calling for the extension	Intercom	1: on
62	Trunk outgoing	On/off Trunk calling for the extension	Trunk Outgoing Call	1: on
63	Call Pick upped	On/off an extension's ability to pick up a call ringing into a Pickup Group (Service Code 867 and 868)	Call Pickup	1: on
64	Pilot number called extension	On/off an extension's ability to call a department number	Group Hunt	1: on
65	Break In	ON/off break In at the initiating extension	Break In	1: on
66	Broken In	Blocks/Allows Break In at the initiating extension	Break In	1: on
67	Buzzer	On/off an extension's ability to use Secretary Call	Secretary Call	1: on
68	Setting of signal/voice called	Allows/prevents an extension's ability to set signal-called mode (s/c: 823) and voice-called mode (s/c: 821)	Intercom	1: on
69	Programmable function key programming	On/off programmable and extension's ability to program their function keys	Programmable Function Key	1: on
70	DCI auto answer	On/off an extension's ability to set the DCI auto answer mode (Service Code 883)	Data Communications	1: on

Note: on → Enable, off → Disable

Class of Service (Cont'd)

Class of Service Options, Program 0406 (Page 6 of 8)

Item	Name	This option...	Is used with...	Default
71	Time and date setting	On/off an extension's ability to set the Time and Date	Time and Date	1: on
72	Switching of signal/voice call	Allows/prevents an extension's ability to switch the calling mode from voice to signal or vise versa	Intercom	1: on
73	Microphone cutoff	On/off an extension's ability to use Microphone Cutoff	Microphone Cutoff	1: on
74	Repeat redial	On/off an extension's ability to use Repeat Redial	Repeat Redial	1: on
75	Text message	On/off an extension's ability to use Text Message	Text Message	1: on
76	Automatic on hook transfer	On/off an extension's ability to use Automatic on hook transfer	Transfer	1: on
77	Automatic on-hook transfer (Park Hold)	On/off an extension's ability to use Automatic on hook transfer for Park Hold	Transfer	1: on
78	-- *Not Used* --			
79	External Call Forward	On/off an extension's ability to set External Call Forward	External Call Forward	0: off
80	Calling number identification (CLIP)	On/off an extension's ability to indicate CLIP information on the LCD	ISDN Capability	1: on
81	Advice of charge (AOC)	On/off an extension's ability to indicate AOC information on the LCD	ISDN Capability	1: on
82	Cost display	On/off an extension's ability to indicate the cost information through TTU on the LCD	TTU	0 off
83	Sub address identification	On/off an extension's ability to indicate sub-address information on the LCD	ISDN Capability	0 off
84	Account code service	On/off an extension's ability to enter Account Codes	Account Codes	0: off
85	Extension name program	On/off an extension's ability to program its name	Name Storing	1: on
86	Checking incoming ring tone	On/off an extension's ability to check the Selectable Ring Tone	Selectable Ring Tone	0: off
87	Notification of Temporary Memory existence	On/off an extension's ability to indicate Temporary Memory existence during absence/busy	Caller-ID	1: on
88	Display the detail state of called party	On/off an extension's ability to indicate "busy status" of B(internal) -party	Alphanumeric Display	0: off

Note: on → Enable, off → Disable

Class of Service (Cont'd)

Class of Service Options, Program 0406 (Page 7 of 8)

Item	Name	This option...	Is used with...	Default
89	-- *Not Used* --			
90	-- *Not Used* --			
91	Operator transfer after hold callback	On/off an extension's ability to use automatic transfer to operate after hold callback	Intercom	0: off
92	Direct Call Pickup – own group	On/off an extension's ability to use direct call pickup to own group	Call Pickup	1: on
93	Enable on hook when holding (SLT)	On/off an SLT's ability to use on hook when holding	Hold	1: on
94	Answer on hook when holding (SLT)	On/off an SLT's ability to answer on hook when holding	Hold	1: on
95	Ringing Trunk name display	On/off the Ringing Trunk name display. If "on", second line of display shows recall source.	Transfer	0: off
96	Operation for VAU massage	On/off an extension's ability to operate VAU messages	Automated Attendant for DUD and DISA	1: on
97	General message playback	On/off an extension's ability to listen General massage (VAU)	General Message	1: on
98	General message record and erase	On/off an extension's ability to control General message (VAU)	General Message	1: on
99	Personal greeting message	On/off an extension's ability to use Personal greeting message (VAU)	Call Forward with Personal Message	1: on
100	-- *Not Used* --			
101	-- *Not Used* --			
102	SMDR printout accumulated extension data	On/off an extension's ability to output the accumulated data per extension base	SMDR	0: off
103	SMDR printout accumulated STG data	On/off an extension's ability to output the accumulated data per station group base	SMDR	0: off
104	SMDR printout accumulated account code data	On/off an extension's ability to output the accumulated data per account code base	SMDR	0: off
105	Group listening service	On/off an extension's ability to use Group Listening	Group Listening	0: off

Note: on → Enable, off → Disable

Class of Service (Cont'd)

Class of Service Options, Program 0406 (Page 8 of 8)

Item	Name	This option...	Is used with...	Default
106	-- *Not Used* --			
107	Long conversation cut-off for incoming call	On/off the long conversation automatic cut-off for incoming Trunk.	Long Conversation Cut-off	0: off
108	Long conversation cut-off for outgoing call	On/off the long conversation automatic cut-off for outgoing Trunk.	Long Conversation Cut-off	0: off
109-119	-- Not used --			
120	Forced trunk disconnect service	On/off an extension's ability to use forced trunk disconnect service	Forced Trunk Disconnect	0: off
121	Dial block	On/off an extension's ability to use Dial Block.	Dial Block	0: off
122	Trunk port disable	On/off an extension's ability to use Trunk Port Disable.	Trunk Port Disable	0: off
123	Indicate Caller-ID information	On/off an extension's ability to indicate Caller-ID information on the LCD	Caller-ID	1: on
124	Edit Caller-ID table	On/off an extension's ability to edit Caller-ID table	Caller-ID	1: on
125	Incoming, holding answer by CL1/2 key	On/off an extension's ability to answer incoming/holding call by CL1 or CL2 key	Intercom	0: off
126	External incoming answer with service code	On/off an extension's ability to answer trunk incoming call by service code	Trunk incoming Call	0: off
127	Protect for the call mode switching from caller	On/off an extension's ability to protect the call mode to be switched by the caller (intercom)	Intercom	0: off
128	-- *Not Used* --			

Note: on → Enable, off → Disable

Condition Guidance Message (VAU)

Description

Condition Guidance Message gives key telephone users to listen date, time and own extension number.

Conditions

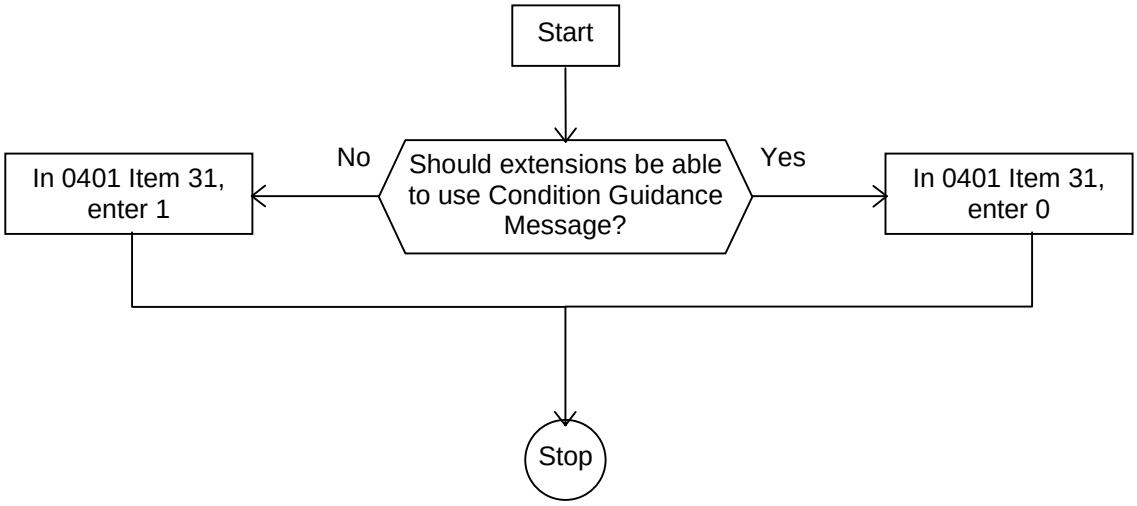
This feature is available for key telephone.

Options

DX2E-VAU-A module

VAU Expansion Board

Programming



Related Features

None

Condition Guidance Message (VAU) (Cont’d)

Operation

To listen the date:

1. Do not lift the handset and do not press a CL key.
2. Dial 3.
3. Listen date.
   ex. "The day is Thursday seven fourteen ninety-nine."
   (Thursday July 14 1999)

To listen the own extension number:

1. Do not lift the handset and do not press a CL key.
2. Dial 6.
3. Listen extension number.
   ex. "This is station Two-o-one." (201)

To listen the time:

1. Do not lift the handset and do not press a CL key.
2. Dial 8.
3. Listen the time.
   ex. "The time is eleven-five AM." (11:05AM)

Conference

Description

Conference lets an extension user add additional inside and outside callers to their conversation. With Conference, a user may set up a multiple-party telephone meeting without leaving the office. The system allows either four or eight parties maximum per conference. Up to two outside parties can be joined in Conference on analogue trunks.

Conditions

This feature available for key telephone and single line telephone.

Default Setting

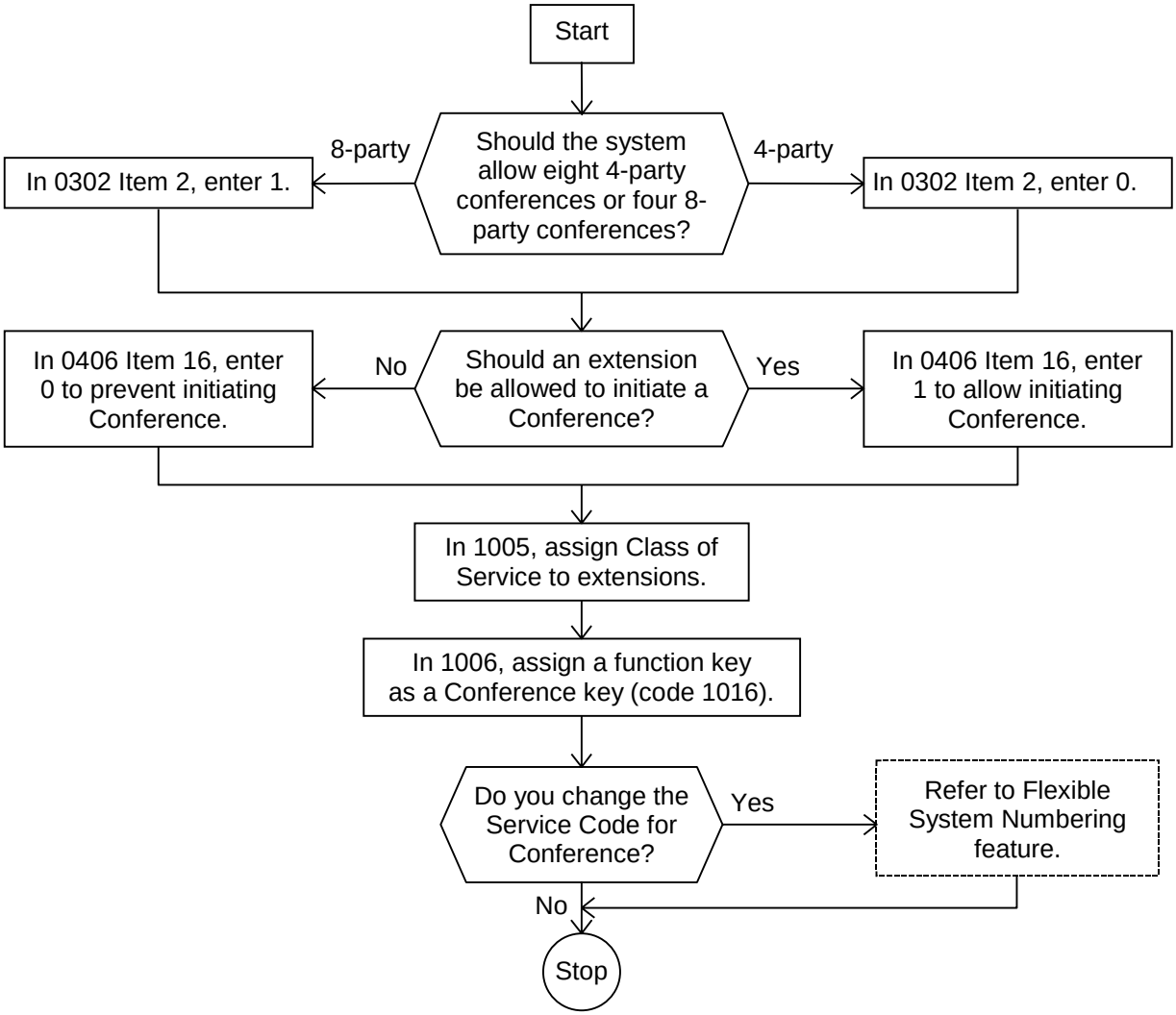
- System allows four-party conferences.
- An extension's Class of Service allows initiating a Conference.
- Conference key not assigned.
- Service Code of Conference is dial 826.

Options

None

Conference (Cont’d)

Programming (Cont'd)


Start
Should the system allow eight 4-party conferences or four 8-party conferences?
8-party
4-party
In 0302 Item 2, enter 1.
In 0302 Item 2, enter 0.
Should an extension be allowed to initiate a Conference?
No
Yes
In 0406 Item 16, enter 0 to prevent initiating Conference.
In 0406 Item 16, enter 1 to allow initiating Conference.
In 1005, assign Class of Service to extensions.
In 1006, assign a function key as a Conference key (code 1016).
Do you change the Service Code for Conference?
Yes
Refer to Flexible System Numbering feature.
No
Stop

Conference (Cont'd)

Programming (Cont'd)

> 0302 – Music on Hold and Conference Setup, Item 2: Conference mode
Set the Conference mode. The system allows either 8 four-party conferences (0) or 4 eight-party conferences (1).

> 0406 – COS Options, Item 16: Conference
In an extension's Class of Service, enables (1) or disable (O) the extension's ability to initiate a Conference.

> 0511 – Service Code Setup, Part A Item 24: Conference
Assign a Service Code for Conference.

> 1005 – Class of Service for Extension
Assign a Class of Service (1-10) to extension.

> 1006 – Programming Function keys
Assign a function key for Conference (code 1016).

Related Features

Meet Me Conference

Meet Me Conference lets an extension user set up a Conference via Paging.

Meet Me Paging

Meet Me Paging lets an extension user set up a two-party meeting via Paging.

Programmable Function Key

In order for keyset to have conference, it must have a conference function key.

Unsupervised Conference

After the conference call is established, the extension user can quit from the mode.

Operation

<Key Telephone>

To establish a Conference:

1. Establish Intercom or Trunk call.
2. Press Conference key (PGM 1006 or SC 851: 1016).
3. Dial extension you want to add.
   OR
   Access outside call.
   To get the outside call, you can either press a line key or dial a trunk/trunk group code.
4. When called party answers, press Conference key twice.
5. Repeat steps 2-4 to add more parties.

Conference (Cont'd)

Operation

<Key Telephone> (Cont'd)

To establish a Conference (Cont'd):

1. Establish Intercom or Trunk call.
2. Dial 826( ).
3. Dial extension you want to add.

   OR

   Access outside call.

   To get the outside call, you can either press a line key or dial a trunk/trunk group code.
4. When called party answers, press HOLD key twice.
5. Repeat steps 2-4 to add more parties.

To exit a Conference without affecting the other parties:

1. Press HOLD key.

   If you press Hold while on a call with two outside callers, the outside callers hear Music on Hold.

To hold all other parties in conference.

1. Press Conference key (PGM 1006 or SC 851: 1016).
2. Do not hang up.

To hold recall in conference.

1. Press Conference key (PGM 1006 or SC 851: 1016).

<Single Line Telephone>

To establish a Conference:

1. Establish Intercom or Trunk call.
2. Hooking and 826( ).
3. Dial extension you want to add.

   OR

   Access outside call.

   To get the outside call, you can either dial specified line access code or dial a trunk/trunk group access code.
4. When called party answers, hooking twice.
5. Repeat steps 2-4 to add more parties.

To hold all other parties in conference.

1. Hooking.
2. Do not hang up.

To hold recall in conference.

1. Hooking.

Continued Dialing

Description

Continued Dialing allows an extension user to dial a call, wait for the called party to answer and then dial additional digits. This helps users that need services like Voice Mail, automatic banking.

There are two types of Continued Dialing;

- **Continued Dialing for Intercom Calls**

Depending on an extension's Class of Service, a keyset user may be able to dial additional digits after their Intercom call connects. In systems with Special Extension connected to SLT port, for example, Continued Dialing lets extension users dial the different options after the Voice Mail answers. Without Continued Dialing, extension users cannot access these Voice Mail options.

- **Continued Dialing far Trunk Calls**

Continued Dialing gives a user access to outside services like automatic banking, an outside Automated Attendant. After the outside service answers, the user can dial digits for whatever options the service allow. Without Continued Dialing, the system's Toll Restriction will cut off the call after a specific number of dialed digits. See Programming below for additional information.

NOTICE

Continued Dialing may make the system more susceptible to toll fraud

Conditions

This feature available for key telephone and DTMF type single line telephone.

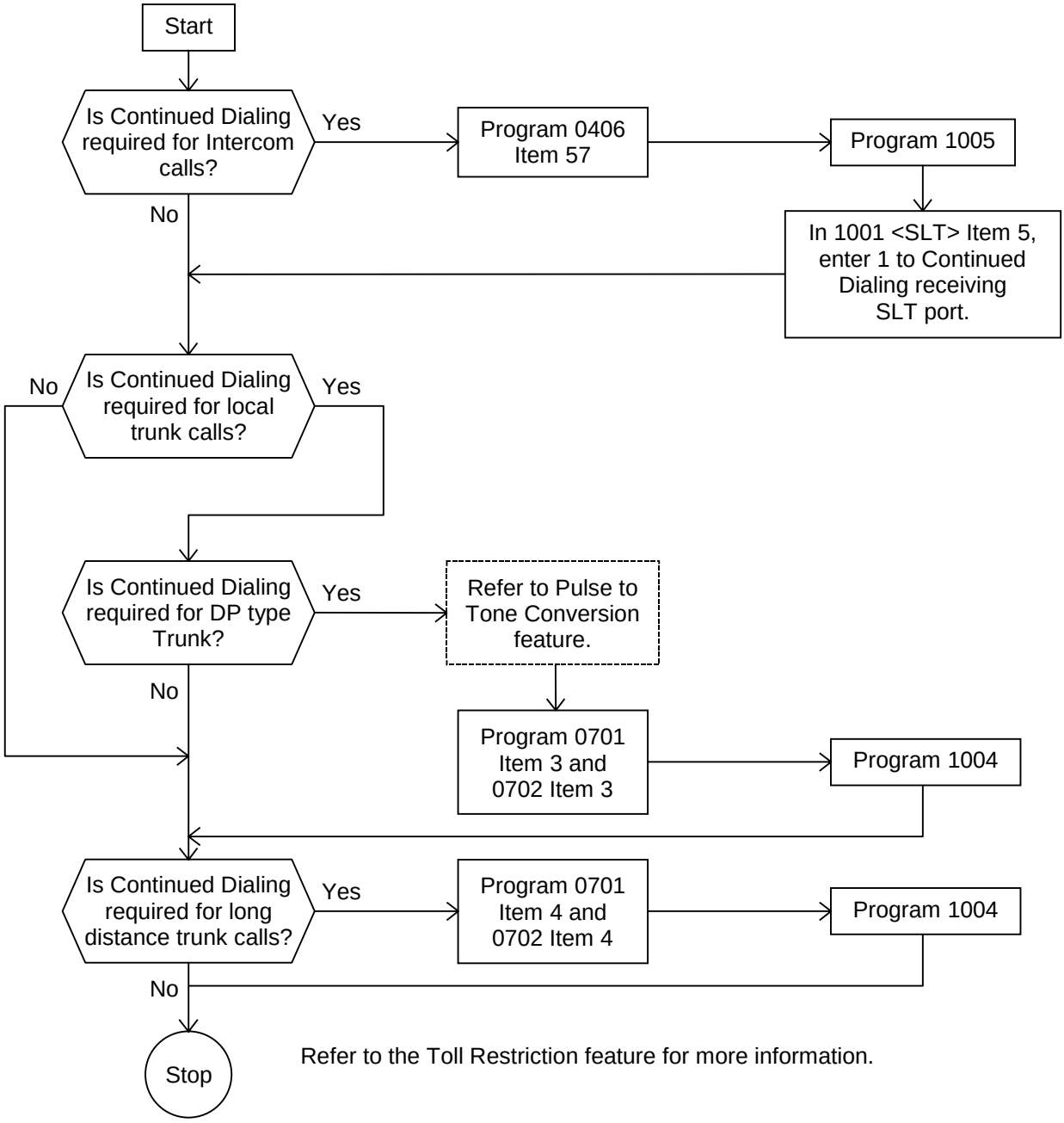
Since SLT set dial pad is always active, the system does not limit Intercom Continued Dialing from these phones.

Default Setting

- Intercom Continued Dialing allowed.
- Toll Restriction allows Continued Dialing for Trunk calls.
- Continued Dialing detection port no setting.

Continued Dialing (Cont'd)

Programming


Start
Is Continued Dialing required for Intercom calls?
Yes
Program 0406 Item 57
Program 1005
In 1001 <SLT> Item 5, enter 1 to Continued Dialing receiving SLT port.
No
Is Continued Dialing required for local trunk calls?
No
Yes
Is Continued Dialing required for DP type Trunk?
Yes
Refer to Pulse to Tone Conversion feature.
No
Program 0701 Item 3 and 0702 Item 3
Program 1004
Is Continued Dialing required for long distance trunk calls?
Yes
Program 0701 Item 4 and 0702 Item 4
Program 1004
No
Stop

Refer to the Toll Restriction feature for more information.

Continued Dialing (Cont'd)

Options

None

Programming (Cont'd)

Refer to the Programming Flowchart an the Following Page

> 0104 – DP to DTMF Conversion Options
> Set the DP to DTMF conversion timing, auto (0) or auto and manual (1) or manual (2) par each Trunk.

> 0405 – System Timers, Item 30: Inter digits timer
> Set the inter digit timer (0-64800 seconds)

> 0406 – COS Options,
> Item 57: DTMF signal sending while talking on extension
> In an extension's Class of Service, enables (1) or disable (0) an extension's ability to use Continued Dialing for Intercom calls to SLT.

> 0701 – Toll Restriction Class, Item 3: Dial Number Length Limit for Local Call
> Assign Program 0702 Item 3 entries to each Toll Restriction class.

> 0701 – Toll Restriction Class, Item 4: Maximum Dial Number Length Limit
> Assign Program 0702 Item 4 entries to each Toll Restriction class.

> 0702 – Toll Restriction Tables, Item 3: Dial Number Length Limit for Local Call
> If enabled in 0701 Item 3, user cannot dial a local call longer than this number of digits.

> 0702 – Toll Restriction Tables, Item 4: Maximum Dial Number Length Limit
> If enabled in 0701 Item 4, user cannot dial a long distance call longer than this number of digits.

> 1001 – Basic Extension Port Setup (Part A), <Single Line Telephone>
> Item 5: Terminal type
> Set the SLT ports for Continued Dialing possible to receive.

> 1004 – Toll Restriction Class
> Assign a Toll Restriction Class (1-8) to an extension.

> 1005 – Class of Service for Extension
> Assign a Class of Service (1-10) to extension.

Continued Dialing (Cont'd)

Related Features

Toll Restriction

The ability to use Continued Dialing on Trunk calls is set by Toll Restriction programming.

Pulse to Tone Conversion

Users can place calls to services over Dial Pulse Trunks – and then dial DTMF digits after the service answers.

Operation

To use Continued Dialing:

(When DP to DTMF conversion timing is auto to DP trunk)

or (Continued dialing to DTMF trunk.)

1. Place Intercom or Trunk call.
2. Continue dialing after call connects.

Toll Restriction and Class of Service programming may limit Continued Dialing.

To use Continued Dialing:

(When DP to DTMF conversion timing is manual to DP trunk)

1. Place Intercom or Trunk call.
2. Dial #.
3. Continue dialing.

Toll Restriction and Class of Service programming may limit Continued Dialing.

CTI Capability

Description

From next version of main software (version “2.4A”), TAPI 1.4 standard will be supported. Several application software package (e.g. Phonemax, Phonetasatic, etc..) which are being sold in the market may be able to applicable to the dX-Z system.

For the future plan. TAPI 2.1 standard shall be complied with.

For more details, refer to separate issue for CTI.

Data Communication Interface (DCI)

Description

With the Data Communication Interface (DCI), you can use your telephone system to set up a data network. DCI networking lets system users share common office resources such as PCs and printers. Since the phone system handles the network communications, you can eliminate the expense of separate wiring, network adaptors and network driver software. The DCIs can switch asynchronous RS-232-C data at speeds from 300 to 19.2K baud.

Internal X 25 packet switching ensures maximum data reliability with a minimum of disruption to other system activities.

There are three types of DCIs:

- **RS-232-C DCI Module (DX2E-DCI-A)**

  The DCI-A is a single port data module that installs in a Key Telephone with display for serial (RS-232-C) communications. Although it installs in the phone, the DCI-A has its own unique port and extension number. Use DCI-A to easily add RS-232-C data capabilities to any keyset. The system can have up to 72 DCI Ports (DCI-A plus DCI-B plus 3DCI X 3 – see below).

- **Centronics DCI Module (DX2E-DCI-B)**

  The DCI-B is also a single port data module that installs in a key telephone, but it is used for parallel (Centronics) communication.

  Like the DCI-A, DCI-B also has its own unique port and extension number. If you want to connect a parallel printer to your data network, use the DCI-B instead of a DCI-A and a separately purchased serial-to-parallel converter. The system can have up to 72 DCI Ports (DCI-A plus DCI-B plus 3DCI X 3 – see below).

- **3-Port DCI Unit (DX2E-3DCI-A)**

  The 3DCI-A is a stand-alone unit that connects to a single DSTU card ports and provides three RS-232-C ports. The 3DCI units are helpful in areas that have a high concentration of data devices. Since you can have three devices connected to each 3DCI, you use up 1/3 the number of DTSU card ports (when compared to the DCI Module). The system can have up to 24 3DCI Ports (DCI-A plus DCI-B plus 3DCI X 3 – see above).

Data Communication Interface (DCI) (Cont'd)

Description (Cont'd)

DCI Features

- **Keyset-Originated Data Call**

  Place a call to another DCI by using your telephone dial pad. The data call automatically sets up if the called DCI answers.

- **Terminal-Originated Data Call**

  Place data calls directly from your PC. You can dial using Hayes compatible dialing commands (e.g., ATDT) or use the powerful auto-dialing features of your communications software.

- **DCI Department Group**

  Group DCIs into departments for pooled DCI operation. For example, you can program several network printers into a DCI Department Group (see the illustration below). When a user calls the department, they connect to the first available printer.

- **Hayes Compatibility**

  The DCI is compatible with many Hayes AT commands. For example, you can use S-registers to change DCI communications parameters (refer to Table DCI-2). In addition, Result Codes help you monitor the progress of your call (refer to Table DCI-4).

  You can also enter over 20 Hayes commands from your terminal to control dialing and terminal options, Result Code display and S-register programming (refer to Table DCI-5).

- **DCI Hotline**

  DCI Hotline sets up a "nailed-up" (permanent) connection between a DCI Module and another DCI. During programming, you set the DCI Module as the "source" and the other DCI as the "target". When the user at the source presses the keyset data key, the system automatically sets up the data link to the target DCI. You could use a DCI Hotline at a terminal connected through the phone system to a mini-computer. When the terminal user presses the keyset Hotline key, the terminal goes on-line to the mini-computer.

Data Communication Interface (DCI) (Cont'd)

Description (Cont'd)

- **Speed Conversion**

  The system can automatically compensate for speed differences between two connected data device. For example, a PC receiving at 2400 baud can accept files sent by another PC at 19.2K baud. There is no need for the two devices to match their communications speed.

  Physical Ports and Software Ports

  DCIs have physical ports and corresponding software ports. The software ports are used during system programming. For DCI modules, the physical port and corresponding software port (1-72) are the same as the phone port into which the module is installed.

  Each 3DCI consists of a physical port for connection to the Main Equipment and three software ports. The physical port is the station port into which the 3DCI line cord is plugged. The 1st software port of a 3DCI is the same as the physical port. Other two software ports follow 1st software port. For example, when you installed a 3DCI to 2nd station port of the system, the physical port of this 3DCI is “2”. The software ports assigned to “2”,”3” and “4”. Please note that you can not overlap software port of the DCI, in other words, you can connect the Key Telephone (without DCI) to station port “3” and “4” in above connection.

  During programming, you assign DCI extension numbers, Department Group options and System options to DCI software ports, not physical ports. And, due to the above rule, 3DCI unit has to be connected between 1st and 6th port of each DSTU card. Refer to the system Hardware Manual for more installation details.

Data Communication Interface (DCI) (Cont'd)

Description (Cont'd)

Table DCI-1, S-Registers (Page 1 of 3)

S-Register	Title	Description	Range	Default
0	Number of Rings Until Auto-Answer	The number of rings required before the DCI port answers the call	0 (No auto-answer) 1-255 (0-510 seconds)	0
1	Ring Count	The register that stores the number or rings detected by the DCI	0-255 (0-510 seconds)	0
2	Escape Character	The decimal value of the ASCII character used for Escape	0-127 (decimal)	43
3	Carriage Return Character	The decimal value of the ASCII character used for carriage return	0-127 (decimal)	13
4	Line Feed Character	The decimal value of the ASCII character used for line feed	0-127 (decimal)	10
5	Backspace Character	The decimal value of the ASCII character used as a backspace	0-32, 127 (decimal)	8
7	Wait for Carrier After Dial	During call setup, sets time DCI waits for carrier from remote modem before hanging up Also Sets time DCI pauses when it encounters a W in the dial string	1-255 (seconds)	30
9	Carrier Detect Response Time	Minimum duration of valid carrier signal	1-255 (10-2550 mS)	6 (60 mS)
10	Lost Carrier to Hang Up Delay	Length of time DCI waits before hanging up after loss of carrier (must be greater than register 9)	1-255 (10-2550 mS)	14 (140 mS)
12	Escape Code Guard Time	Delay (guard) time before and after entering escape character	0, 1-255 (0, 20-5100 mS)	50 (1 second)

Data Communication Interface (DCI) (Cont'd)

Description (Cont'd)

Table DCI-1, S-Registers (Page 2 of 3)

S-Register	Title	Description	Range	Default
25	Delay to DTR	In synchronous mode, sets interval between connection and examination of DTR Also After connection, sets minimum duration of valid DTR signal	1-255 (10-2550 mS)	5 (50 mS)
61	Packet size	Sets the size of the data packet. Packets exceeding this size are transmitted. Packets less than this size are not (unless timeout occurs –see register 63).	0-255 (0-255 byte)	255
62	Terminate Code	The decimal value of the ASCII code used to end (terminate) a command line	0-127 (decimal)	13 (CR)
63	Data Transmission Time	Sets how long DCI waits before transmitting an incomplete packet. Use register 61 to set packet size	0, 1-255 (0, 50-12750 mS) 0 = disabled	20 (1000 mS)
64	Result Code Send/Block	Allows/prevents sending of Result Codes to device connected to DCI	0 = Send 1 = Do Not Send	0 (Send)
	Result Code Type	Enables sending of Result Codes as words or numbers	0 = Numeric 1 = Words	1 (Words)
	Result Code Mode	Determines which set of Result Codes are sent to device connected to DCI (Basic or Extended – see Results Codes table below)	0 = Basic 1 = Extended	0 (Basic)
65	Baud Rate	Sets the baud rate of the DCI port	1 = 300 BPS 2 = 600 BPS 3 = 1200 BPS 4 = 2400 BPS 5 = 4800 BPS 6 = 9600 BPS 7 = 19200 BPS	3 (1200 BPS)

Data Communication Interface (DCI) (Cont'd)

Description (Cont'd)

Table DCI-1, S-Registers (Page 3 of 3)

S-Register	Title	Description	Range	Default
	Stop Bit	Sets the number of stop bits the DCI expects in the data stream	0 = 1 stop bit 1 = 2 stop bits	0 (1 stop bit)
	Data Bits	Sets the number of data bits the DCI expects in the data stream	0 = 7 stop bits 1 = 8 stop bits	1 (8 stop bits)
	Parity	Sets the parity method the DC expects in the data stream	0 = No parity 1 = Not used 2 = Odd parity 3 = Even parity	0 (no parity)
66	Request to Send (RTS) Control	Enables (0) or disables (1) RTS (pin 4) control. If disabled, the DCI holds RTS on	0 = Control enabled 1 = Disabled (normally on)	0 (control enabled)
	Data Terminal Ready (DTR) Control	Enables (0) or disables (1) DTR (pin 20) control. If disabled, the DCI holds DTR on	0 = Control enabled 1 = Disabled (normally on)	0 (control enabled)
	Clear to Send	Enables (0) or disables (1) CTS (pin 5) control. If disabled, the DCI holds CTS on	0 = Control enabled 1 = Disabled (follows RTS)	0 (control enabled)
	Flow Control	Sets flow control	0 = No flow control 1 = RTS/CTS (Hardware) flow control enabled 2 = XON/XOFF between DCI and connected terminal 3 = XON/XOFF between sender and receiver (DCI transparent)	1 (Hardware flow control)

Data Communication Interface (DCI) (Cont'd)

Description (Cont'd)

Table DCI-2, X.25 Packet Switching (LAPB) Registers

LAPB Register	Title	Description	Range	Default
Internal Calls				
1	T1 Timer	After the DCE (DCI) sends a packet, it must receive a response from the connected DTE within the T1 interval. If a response is not received, the DCE resends the packet	0-65535 mS	500 mS
2	T2 Timer	After the connected DTE receives a packet from the DCE, it must respond within the T2 interval. (T2 must be less than T1.)	0-65535 mS	250 mS
3	N1	The maximum number of bits in an I (Information Transfer) frame.	0-65535 mS	2080 bits
4	N2	After T1 expires, N2 is the maximum number of transmissions and retransmissions of a packet allowed	0-65535 times	
5	K	The maximum number of I (Information Transfer) frames a connected device may have unacknowledged (outstanding)	0-7 frames	7 frames
External Calls				
6	T1 Timer	After the DCE (DCI) sends a packet, it must receive a response from the connected DTE within the T1 interval. If a response is not received, the DCE resends the packet.	0-65535 mS	2000 mS
7	T2 Timer	After the connected DTE receives a packet from the DCE, it must respond within the T2 interval. (T2 must be less than T1.)	0-65535 mS	1000 mS
8	N1	The maximum number of bits in an I (Information Transfer) frame.	0-65535 mS	2080 bits
9	N2	After T1 expires, N2 is the maximum number of transmissions and retransmissions of a packet allowed	0-65535 mS	7 times
10	K	The maximum number of I (Information Transfer) frames a connected device may have unacknowledged (outstanding)	0-7 frames	7 frames

Data Communication Interface (DCI) (Cont'd)

Description (Cont'd)

Table DCI-3, DCI RS-232-C Connector

Pin	Designation	Function	Direction
1	FG	Protective Ground	
2	TX	Transmitted Date	To Terminal
3	RX	Received Date	To DCI
4	RTS	Request to Send	To Terminal
5	CTS	Clear to Send	To DCI
6	DSR	Data Set Ready	To DCI
7	SG	Signal Ground	
8	CD	Carrier Detect	To DCI
20	DTR	Data Terminal Ready	To Terminal
22	RI	Ring Indicator	To DCI

Data Communication Interface (DCI) (Cont'd)

Description (Cont'd)

Table DCI-4, Result Codes

Numbers	Words	Definition	Result Code Set				
			0	1	2	3	4
0	OK	Returned when command entered without error.	*	*	*	*	*
1	CONNECT	Connection is established (any speed) with result code set 0.	*	*	*	*	*
2	RING	Displays at destination terminal while call is ringing.	*	*	*	*	*
3	NO CARRIER	No carrier received from destination - call disconnected.	*	*	*	*	*
4	ERROR	Incorrect command entered.	*	*	*	*	*
5	CONNECT 1200	Call connected at 1200 baud.		*	*	*	*
7	BUSY	Destination extension busy				*	*
8	NO ANSWER	Destination doesn't answer within allowed time.	*	*	*	*	*
10	CONNECT 2400	Call connected at 2400 baud.		*	*	*	*
21	CONNECT 300	Call connected at 300 baud.		*	*	*	*
22	CONNECT 600	Call connected at 600 baud.		*	*	*	*
23	CONNECT 4800	Call connected at 4800 baud.		*	*	*	*
24	CONNECT 9600	Call connected at 9600 baud.		*	*	*	*
25	CONNECT 19200	Call connected at 19200 baud.		*	*	*	*
26	CAMP ON SET	After getting BUSY result code, caller uses ATK to Camp-On.	*	*	*	*	*
27	CAMP ON FAIL	Camp on attempt fails (see CAMP ON SET above).	*	*	*	*	*
28	CAMP ON CALLBACK	Extension waiting for CAMP ON to go through.	*	*	*	*	*

Data Communication Interface (DCI) (Cont'd)

Description (Cont'd)

Table DCI-5, Hayes Commands (Page 1 of 2)

Command	Title	Description
AT	Attention	Precedes all commands-place at beginning of command line.
A/	Re-execute Command	Re-executes the most recent AT command.
A	Answer	Answers incoming call.
Dn	Dial	Dial according to the value of n, where n can be; 0-9, A to D, # and * (in telephone number) [,], - or space (used to make number easier to read, but ignored at time of dialing).
E0	Echo Off	Terminal does not echo commands input by user.
E1	Echo On	Terminal echoes commands input by user.
H	Hang Up	Hang up (disconnect) current call.
I	ROM Version	Returns the version on the ROM chip in the DCI.
K	Camp On	Camp On to busy system extension.
Q	Return to Communication Mode	After entering command mode (by entering an escape sequence), use ATQ to return to the communications mode.
Q0	Result Codes On	Result codes are displayed.
Q1	Result Codes Off	Result codes are not displayed.
Sx?	Register Contents	The contents of register x are displayed (e.g., S1?) displays the contents of register 1). (x = two digits)
Sx=y	Change Register	The contents of register X are changed to entry y. (x = 2 digits, Y = 3 digits)
V0	Numeric Result Codes Set	DCI provides numeric result codes, instead of verbal result codes. See also Q0 and Q1.
V1	Verbal Result Codes Set	DCI provides verbal result codes, instead of numeric result codes. See also Q0 and Q1.

Data Communication Interface (DCI) (Cont'd)

Description (Cont'd)

Table DCI-5, Hayes Commands (Page 2 of 2)

Command	Title	Description
X0	Result Code Set 0	Enable result code set 0 (basic result codes).
X1	Result Code Set 1	Enable result code set 1.
X2	Result Code Set 2	Enable result code set 2.
X3	Result Code Set 3	Enable result code set 3.
X4	Result Code Set 4	Enable result code set 4.
Z	Reset	Reset the DCI, using the last values saved by system programming or the &W command.
&F	Initialize Registers	The DCI returns all registers to their factory default setting.
&W	Store Registers	The DCI save (store) the current register values. Register values saved are S0, S2-S5, S12, S61-S66.

Data Communication Interface (DCI) (Cont'd)

Conditions

This feature available for PC with DX2E-DCI-A or DX2E-DCI-B or DX2E-3DCI-A

Default Setting

- No DCIs programmed.
- System and Alarm reports use DCI software port 1.
- System date is American format.
- No data keys or Telemarketing Dial keys defined.
- Default communication parameters are 1200 baud, 1 stop bit, 8 data bits with no parity.
- All DCIs are RS-232-C when installed.
- All DCIs are in DCI Department Group 1.
- All DCIs are Toll Restriction Class of Service 2.
- No DCI Hotlines programmed.

Options

Key telephone with display and DX2E-DCI-A set

OR

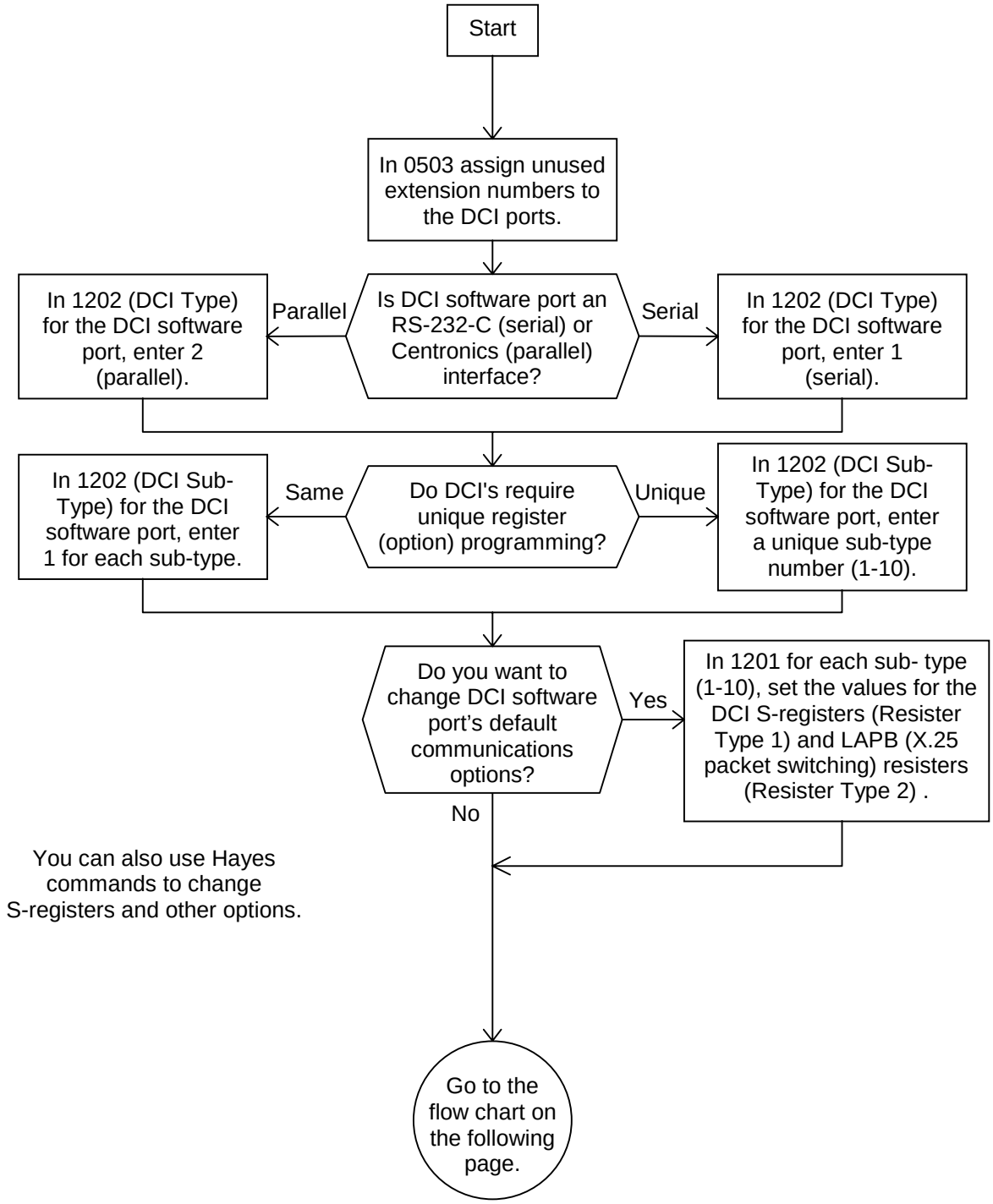
Key telephone with display and DX2E-DCI-B set

OR

DX2E-3DCI-A

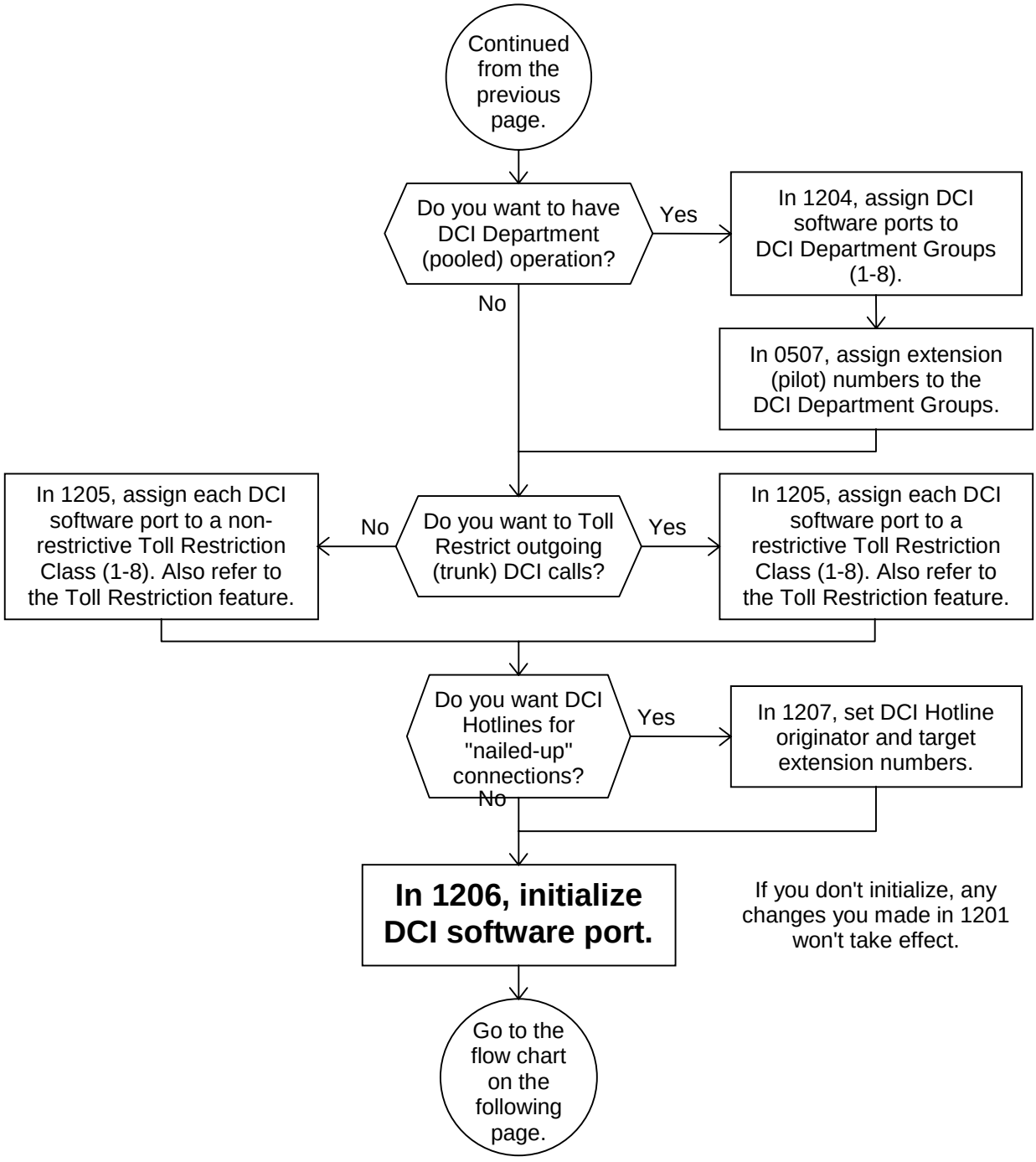
Data Communication Interface (DCI) (Cont'd)

Programming


Start
In 0503 assign unused extension numbers to the DCI ports.
Is DCI software port an RS-232-C (serial) or Centronics (parallel) interface?
Parallel
In 1202 (DCI Type) for the DCI software port, enter 2 (parallel).
Serial
In 1202 (DCI Type) for the DCI software port, enter 1 (serial).
Do DCI's require unique register (option) programming?
Same
In 1202 (DCI Sub-Type) for the DCI software port, enter 1 for each sub-type.
Unique
In 1202 (DCI Sub-Type) for the DCI software port, enter a unique sub-type number (1-10).
Do you want to change DCI software port's default communications options?
Yes
In 1201 for each sub- type (1-10), set the values for the DCI S-registers (Resister Type 1) and LAPB (X.25 packet switching) resisters (Resister Type 2) .
No
You can also use Hayes commands to change S-registers and other options.
Go to the flow chart on the following page.

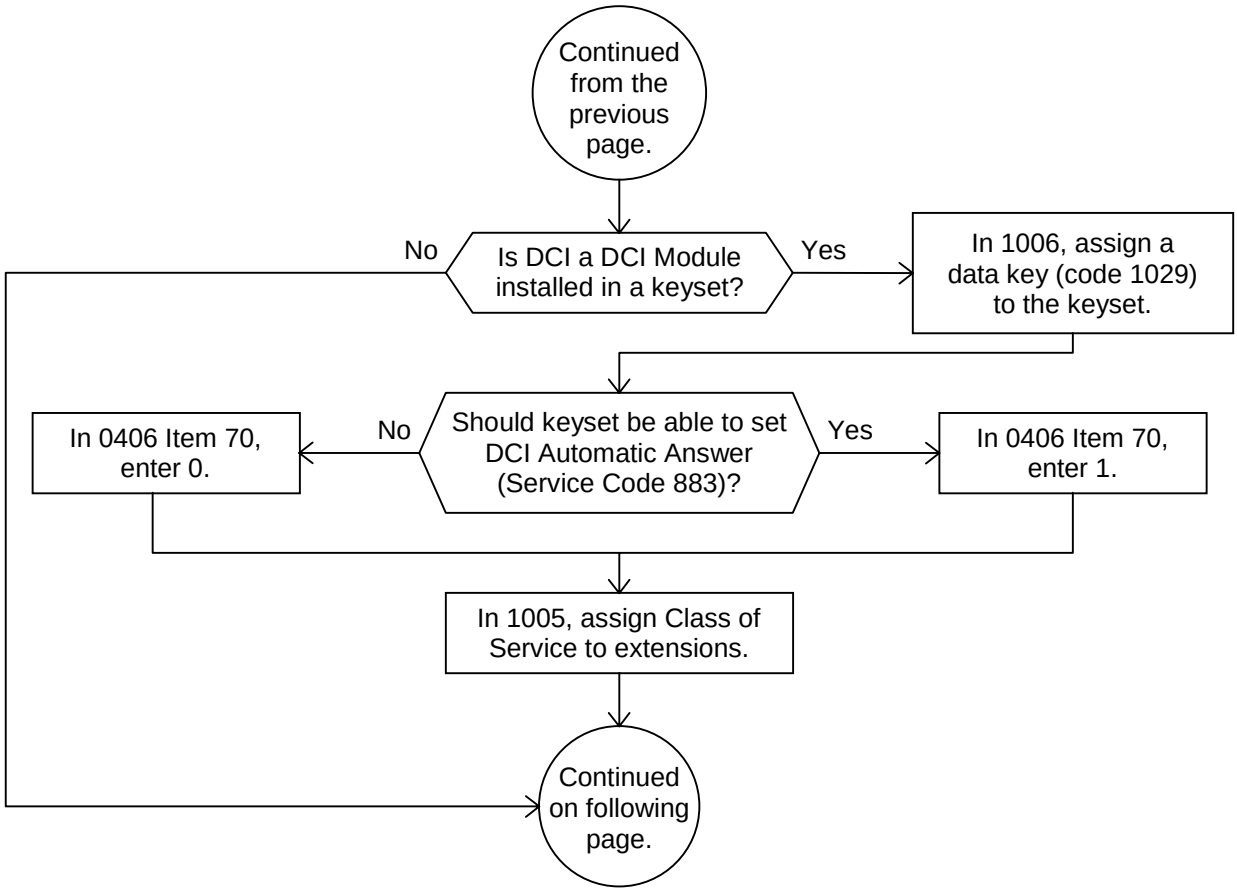
Data Communication Interface (DCI) (Cont'd)

Programming (Cont'd)


Continued from the previous page.
Do you want to have DCI Department (pooled) operation?
Yes
In 1204, assign DCI software ports to DCI Department Groups (1-8).
No
In 0507, assign extension (pilot) numbers to the DCI Department Groups.
In 1205, assign each DCI software port to a non-restrictive Toll Restriction Class (1-8). Also refer to the Toll Restriction feature.
No
Do you want to Toll Restrict outgoing (trunk) DCI calls?
Yes
In 1205, assign each DCI software port to a restrictive Toll Restriction Class (1-8). Also refer to the Toll Restriction feature.
Do you want DCI Hotlines for "nailed-up" connections?
Yes
In 1207, set DCI Hotline originator and target extension numbers.
No
In 1206, initialize DCI software port.
If you don't initialize, any changes you made in 1201 won't take effect.
Go to the flow chart on the following page.

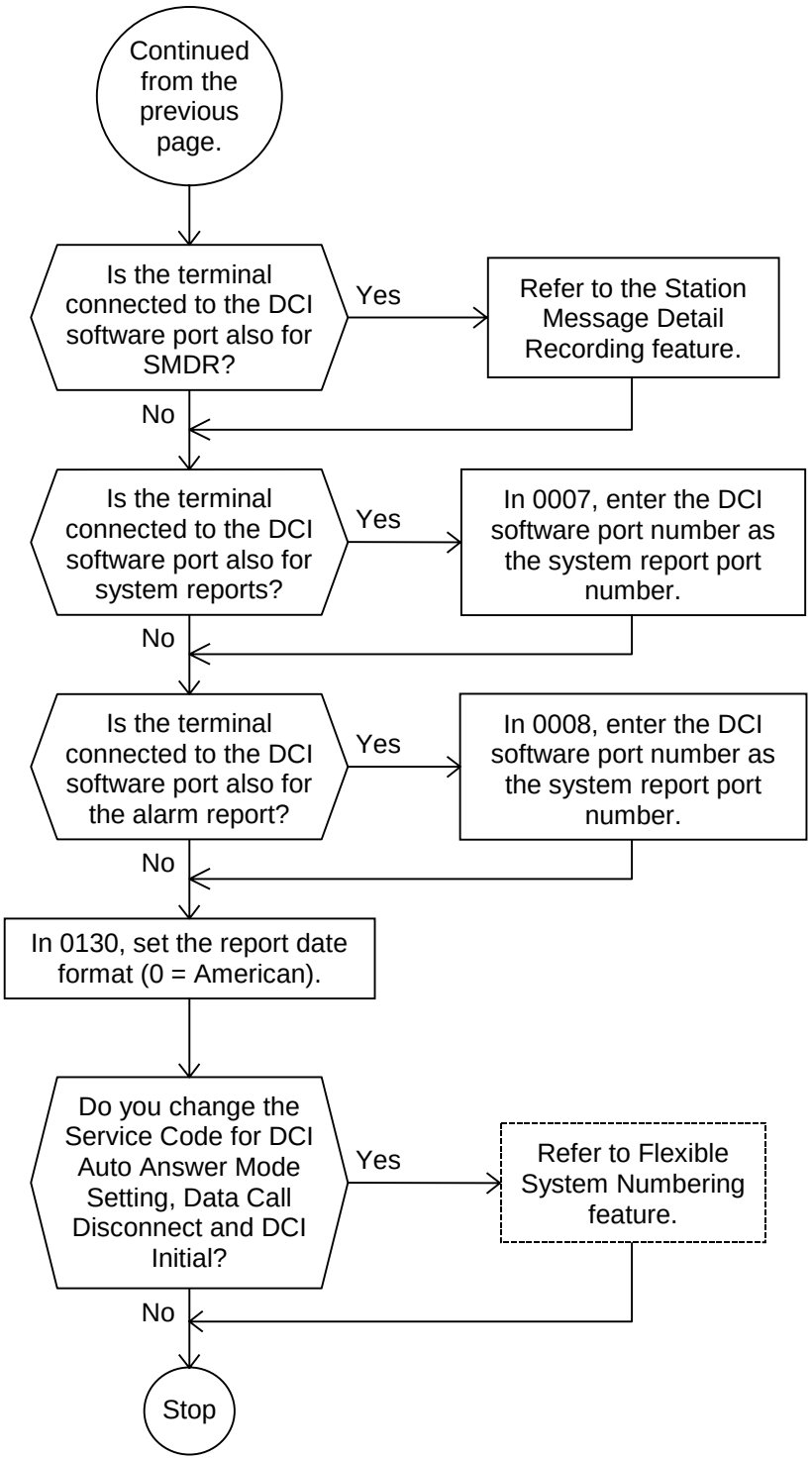
Data Communication Interface (DCI) (Cont'd)

Programming (Cont'd)


Continued from the previous page.
Is DCI a DCI Module installed in a keyset?
No
Yes
In 1006, assign a data key (code 1029) to the keyset.
Should keyset be able to set DCI Automatic Answer (Service Code 883)?
No
Yes
In 0406 Item 70, enter 0.
In 0406 Item 70, enter 1.
In 1005, assign Class of Service to extensions.
Continued on following page.

Data Communication Interface (DCI) (Cont'd)

Programming (Cont'd)


Continued from the previous page.
Is the terminal connected to the DCI software port also for SMDR?
Yes
Refer to the Station Message Detail Recording feature.
No
Is the terminal connected to the DCI software port also for system reports?
Yes
In 0007, enter the DCI software port number as the system report port number.
No
Is the terminal connected to the DCI software port also for the alarm report?
Yes
In 0008, enter the DCI software port number as the system report port number.
No
In 0130, set the report date format (0 = American).
Do you change the Service Code for DCI Auto Answer Mode Setting, Data Call Disconnect and DCI Initial?
Yes
Refer to Flexible System Numbering feature.
No
Stop

Data Communication Interface (DCI) (Cont'd)

Programming (Cont'd)

- 0007 – System Report Print Out Port Setup
  If the device connected to the DCI will also be for system reports, enter the DCI software port number as the system report port number.
- 0008 – System Alarm Report Setup
  If the device connected to the DCI will also be for alarm reports, enter the DCI software port number as the alarm report port number.
- 0130 – Date Format for SMDR and System Reports
  Set the date format for SMDR (0 = American, 1 = European or 2 = Japanese).
- 0406 – COS Options, Item 70: DCI auto answer
  In an extension's Class of Service, enable (1) or disable (0) the extension's ability to set the DCI auto-answer mode
  (Service Code 883).
- 0503 – DCI Extension Number
  Assign an unused extension number (e.g.,500) to the DCI port. This allows other users to place data calls to the DCI.
- 0507 – DCI pooling Pilot Numbers
  Assign unused extension numbers (e.g.,500) to the DCI Department Groups set in Program 1204.
- 0511 – Service Code Setup, Part A Item 49: DCI auto answer mode setting
  Assign a service code for DCI auto answer mode setting.
- 0511 – Service Code Setup, Part A Item 50: Data call disconnect
  Assign a service code for Data call disconnect
- 0511 – Service Code Setup, Part A Item 51: DCI initial
  Assign a service code for DCI initial.
- 1005 – Class of Service for Extension
  Assign Class of Service (1-10) to extensions.
- 1006 – Programming Function Keys
  Assign a data key (code 1029) to each keyset with a DCI Module.

Data Communication Interface (DCI) (Cont'd)

Programming (Cont'd)

> 1201 – DCI Internal Pattern Setup

For each of the DCI sub-types (1-10 set in Program 1202), set the values for the modem S-registers (Register Type 1) and the X.25 packet switching (LAPB) registers (Register Type 2). Refer to Tables DCI-1 and DCI-2 provided with this feature. (You can also change these registers interactively from the DCI's terminal.)

> 1202 – Basic DCI Port Setup

Assign a DCI port type (1 for RS-232-C or Centronics) to each DCI software port installed (1-72). Also, assign the sub-type (1-10 used in Program 1201) to each DCI port.

> 1204 – DCI Group

To pool DCIs into a Department, assign DCI software ports (1-72) to DCI Department Groups (1-8). Assign Pilot Numbers to DCI Departments in Program 0507.

> 1205 – DCI Toll Restriction Class

For outgoing data calls, set the Toll Restriction Class (1-8, used in program 0701) for each DCI port (1-72).

> 1206 – DCI S-Register initial

After changing register values in Program 1201, be sure to use this program to initialize the DCI port (0-72, 0 : All ports).

You must initialize a DCI software port before any changes made in Program 1201 will take effect.

> 1207 – DCI Hotline Assignment

Use this program to set up a DCI Hotline between an extension with a DCI Module and a destination DCI. When the user at the DCI Hotline originator presses the data key, the system automatically calls the programmed destination.

Related Features

Programmable Function Key

A keyset with a Data Module must have a data key. As an option, keysets can also have Telemarketing Dial keys.

Station Message Detail Recording

The system uses DCIs for SMDR and system reports.

Data Communication Interface (DCI) (Cont'd)

Operation

KEYSET-ORIGINATED DATA CALL

To place a keyset-originated data call:

Your extension must have a data key (PGM 1006 or SC 851: 1029)

1. Press idle CL key.
2. Dial DCI extension number.

   The data key lights when the call connects.

   If you see "BUSY" on your terminal display, you may be able to type ATK (Enter) to Camp On. Refer to Table DCI-4 for a description of the other Result Codes. Refer to Table DCI-5 for a complete list of the Hayes-compatible commands.

TERMINAL-ORIGINATED DATA CALL

To make sure your terminal is working properly:

1. Type AT (Enter).

   OK displays on the next line.

   If you don’t see OK, check the communications parameters of your DCI and communications software.

To place a call from your terminal:

1. Type ATD nnn (where nnn is the DCI extension you want to call).
2. Press Enter.

   You see CONNECT if your call goes through. For an explanation of other Result Codes you may see, refer to Table DCI-4.

To reset your DCI from your telephone (DCI Modules only):

Resetting your DCI Module drops the data call in progress.

1. Press idle CL key.
2. Dial 880( ).
3. Press SPK to hang up.

Data Communication Interface (DCI) (Cont'd)

Operation (Cont'd)

USING DCI HOTLINE

To use DCI Hotline:

For DCI Hotline, the calling (source) DCI must be a DCI Module installed in a telephone.

1. Press data key (PGM 1006 or SC 851: 1029) on extension with DCI Module.
   The system automatically sets up the call.

USING HAYES COMMANDS

To use a Hayes command from your terminal:

Hayes commands let you dial numbers, change DCI registers and set other options.

Refer to Table DCI-5 for a list of the Hayes commands available with the DCI.

1. Type AT.
2. Type the command plus any options, then press enter.
   If you use ATSx=y to change S-register values, be sure to use AT&W to save your entries.

ANSWERING DATA CALLS

To answer an incoming data call:

Your data key flashes.

1. Press flashing data key (PGM 1006 or SC 851: 1029).
   OR
   Your PC communications software answers the call automatically.
   You can also type the Hayes command ATA (Enter) to answer the call.

To enable Auto Answer for a DCI Module:

1. Press idle CL key Dial 883( ).

Operation (Cont'd)

DISCONNECTING AN ACTIVE DATA CALL

To disconnect your active data call:

1. Use your PC communications software to hang up.
   OR
   (DCI Module Only) Press idle CL key and dial 884.

Data Communication Interface (DCI) (Cont'd)

Operation (Cont'd)

INITIALIZING A DCI MODULE

To initialize your DCI Module:

1. Press idle CL key and dial 880( ).
2. Press SPK to hang up.

You can also use Program 1206 to initialize DCIs.

Data Privacy

Description

While on a data call using an acoustic coupler, an extension user can implement Privacy to block incoming Off Hook Signals and Break In attempts. The system establishes Privacy for the extension when the user presses the programmed Privacy key. It cancels Privacy when the user presses the Privacy key a second time or hangs up. Privacy assures the user that they will not be interrupted during an important data call.

Conditions

This feature only pertains to data calls set up using a keyset and an acoustic coupler. It does not pertain to data calls using a DCI. (Privacy is automatic for these types of calls.)

Default Setting

An extension's Class of Service allows the use of a Privacy key.

No Privacy keys programmed.

Options

None

Programming

> 0406 – COS Options, Item 7: Data Privacy
  In an extension's Class of Service, enable (1) or disable (0) the ability to use a Privacy key.

> 1005 – Class of Service for Extension
  Assign a Class of Service (1-10) to an extension.

> 1006 – Programming Function Keys
  Assign a Privacy key (code 1030).

Rated Features

Conference, Voice Call/Privacy Release

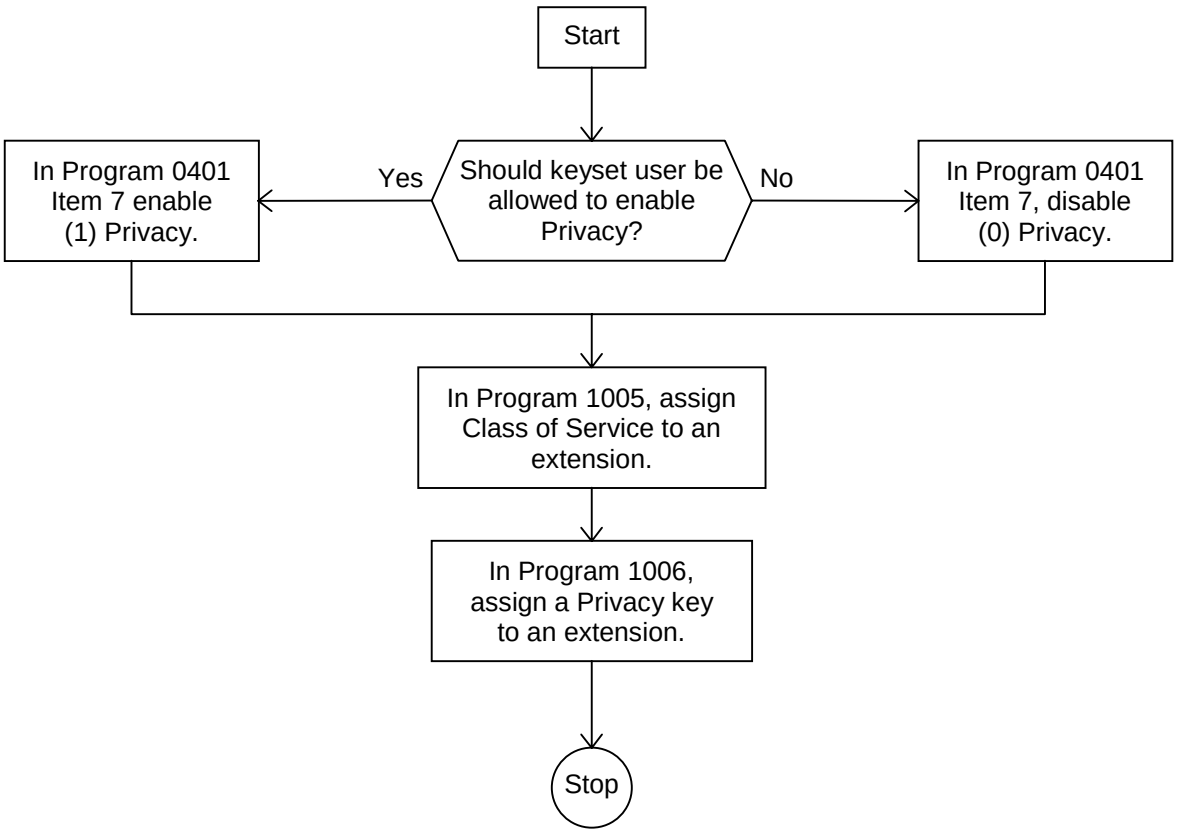
A keyset user can release Privacy on their outside call so a co-worker can join in the conversation.

Programmable Function Key

Data Privacy requires a uniquely programmed function key.

Data Privacy (Cont'd)

Programming (Cont'd)


Start
Should keyset user be allowed to enable Privacy?
Yes
No
In Program 0401 Item 7 enable (1) Privacy.
In Program 0401 Item 7, disable (0) Privacy.
In Program 1005, assign Class of Service to an extension.
In Program 1006, assign a Privacy key to an extension.
Stop

Data Privacy (Cont'd)

Operation

To enable Privacy for the call you are on:

1. Press Privacy key (PGM 1006 or SC 851: 1030).
   A co-worker cannot Break In on your conversation nor send Off Hook Signals.
2. (Optional) Press Privacy key again to release Privacy for the call.
   The system cancels Privacy automatically when you hang up.

Dial Block

Description

Dial Block lets a user down an extension's class of Toll Restriction temporary. This helps an extension user to block his/her phone to be used by another persons. During the Dial Block function is being set at an extension, the toll restriction class (1-8) shall be defined in the system program in the system-wide.

Dial Block feature can also be set by Supervisor and the Supervisor can manage Dial Block in the system-wide.

Note 1 : In case “Dial Block” has already been set by the extension user, Supervisor can not release.

Note 2 : In case “Dial Block” has already been set by Supervisor, the extension user can not release.

Note 3 : This function is not available for S-Bus extensions.

[CAUTION]

This function works under the Password and Class of Service control. (“Supervisor” is not assigned by extension base.) In case “Dial Block” is available for all Classes, everybody may become “Supervisor” if they know the Password.

Conditions

This feature available for key telephone and single line telephone.

(If the system re-start by Cold Start, Dial Block feature is all cleared.)

Default Setting

- No Dial Block Toll Restriction Class programmed.
- Service Code for Dial Block is dial 700.
- An extension's Class of Service does not permit to use Dial Block.

Options

None

Programming

> 0406 – Class of Service Options, Item 121: Dial Block
  In an extension's Class of Service, enable (1) or disable (0) Dial Block.

> 0514 – Service Code Setup, Part B Item 34: Dial Block
  Assign a service code for Dial Black.

> 0703 – Dial Block Restriction Class
  Assign a Dial Block Restriction Class. (1-8)

> 0704 – Dial Block Release
  If an extension user forget Dial Block personal password, you can release Dial Block for each extension.

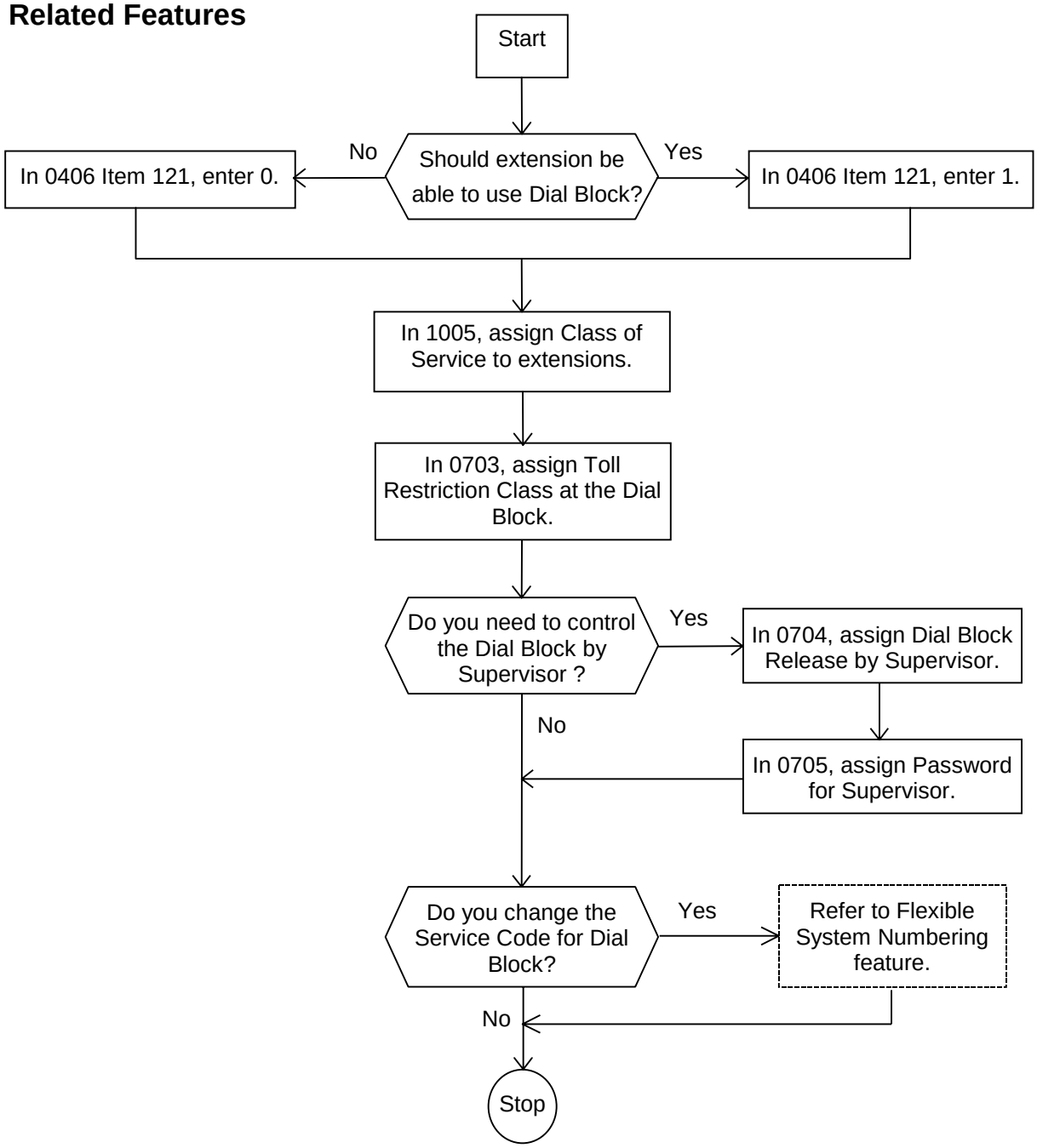
> 0705 – Dial Block Password for Supervisor
  Assign the Password which is used by Supervisor.

> 1005 – Class of Service for Extension
  Assign a class of service (1-10) to an extension.

Dial Block (Cont'd)

Programming (Cont'd)

Related Features


Start
Should extension be able to use Dial Block?
No
Yes
In 0406 Item 121, enter 0.
In 0406 Item 121, enter 1.
In 1005, assign Class of Service to extensions.
In 0703, assign Toll Restriction Class at the Dial Block.
Do you need to control the Dial Block by Supervisor ?
Yes
In 0704, assign Dial Block Release by Supervisor.
No
In 0705, assign Password for Supervisor.
Do you change the Service Code for Dial Block?
Yes
Refer to Flexible System Numbering feature.
No
Stop

Toll Restriction

Dial Block downs an extension's Toll Restriction Class.

Dial Block (Cont'd)

Operation

<Key Telephone>

To set the Dial Block:

1. Press idle CL key.
2. Dial 700( ).
3. Dial personal password (4 digit).
4. Dial 1.
   (Confirmation tone is heard.)
5. Press SPK to hang up.

To release the Dial Block:

1. Press idle CL key.
2. Dial 700( ).
3. Dial personal password (4 digit).
4. Dial 0.
   (Confirmation tone is heard.)
5. Press SPK to hang up.

To set “Dial Block” from the other extension :

1. Press idle CL key.
2. Dial 701 ( ).
3. Dial the Password.
4. Dial the extension No. which is set “Dial Block”.
5. Dial 1 to accept. (Confirmation Tone shall be sent.)
6. Press SPK to hang up.

To release “Dial Block” from the other extension :

1. Press idle CL key.
2. Dial 701 ( ).
3. Dial the Password.
4. Dial the extension No. which has been set “Dial Block”.
5. Dial 0 to release. (Confirmation Tone shall be sent.)
6. Press SPK to hang up.

Dial Block (Cont'd)

Operation (Cont'd)

<Single Line Telephone>

To set the Dial Block:

1. Off hook.
2. Dial 700( ).
3. Dial personal password (4 digit).
4. Dial 1.
   (Confirmation tone is heard.)
5. On hook.

To release the Dial Block:

1. Off hook.
2. Dial 700( ).
3. Dial personal password (4 digit).
4. Dial 0.
   (Confirmation tone is heard.)
5. On hook.

To set "Dial Block" from the other extension :

1. Off hook.
2. Dial 701 ( ).
3. Dial the Password.
4. Dial the extension No. which is set "Dial Block".
5. Dial 1 to accept. (Confirmation Tone shall be sent.)
6. On hook.

To release "Dial Block" from the other extension :

1. Off hook.
2. Dial 701 ( ).
3. Dial the Password.
4. Dial the extension No. which has been set "Dial Block".
5. Dial 0 to release. (Confirmation Tone shall be sent.)
6. On hook.

DID Capability (DDI Capability)

Description

The system supports DID (DDI) feature that the outside party dials as same digits as local telephone number, but it goes to the extension directly through KTS/PABX (switch box).

<Note> Generally, in the telecommunication world, the above function may be called either DID (Direct Inward Dialing) or DDI (Direct Dialing In), even though the functionality is exactly same. In this manual, the word "DID (DDI)" shall be used for easy reference.

For ISDN DDI (DID), in case of the destination is busy/no-answer or vacant number is dialed from outside, then 1st and 2nd transfer tables (even divert to outside party) can be programmed for more flexibility.

Conditions

This feature is available for outside caller on DID (DDI) trunk.

Default Setting

- This feature is not assigned.

Options

DX2E-8/4/BRIU-S1	<for ISDN (BRI)>
DX2E-PRIU-S1	<for ISDN (PRI)>

Programming

> 0405 : System Timers, Part A Item 30 : Inter-Digit Timer (for Trunk)

Define Inter-Digit Timer for Trunk. (5 sec is recommended)

Note : This timer assignment is required in case 2nd Trunk type is Analogue. The system connects DID (DDI) incoming call and transferred to destination party after this timer has passed. In case 2nd Trunk type is Digital (ISDN), this timer assignment is not related.

> 0405 : System Timers, Part A Item 31 : DDI no answer time

Define the ringing duration period. After timeout, this call shall be transferred to the next target in accordance with Command 1814, 1815 and 1809.

> 0406 : Class of Service Options Item 79 : External Call Forward

In extension's Class of Service, enable (1) or disable (0) for the "External Call Forward".

Note : This item should be set to "1".

DID Capability (DDI Capability) (Cont'd)

Programming (Cont'd)

> 0414 : System Timers, Part B Item 9 : DDI pilot call no answer timer
Define no-answer timer for DID (DDI) call to STG pilot number.

> 0414 : System Timers, Part B Item 18: DDI Incoming Ring Group no answer timer
Define no-answer timer for DID (DDI) call that is transferred to IRG.

> 0604 : Trunk Group for Abbreviated Dial
Assign the Trunk Group for ABB outgoing call (for ABB Bin base).

> 0605 : Destination Setup for MSN / DDI Flexible Transfer
Assign the ABB No. which is used as destination of MSN / DDI Flexible Transfer.

> 0905 : Trunk Group
Assign the Trunk Group for the command 1808. (1-16)

> 1805 : DDI Conversion Table Area
Define the DDI Conversion Table Area. (1-8)

> 1806 : DDI Conversion Table Data Setup
Enter the receive number, transferring number and the name per Conversion Table. (1-400)

> 1807 : DDI Receiving Digit Setup
Assign the receiving digits (1-8) to be referred in the Conversion Table Area.(1-8)

> 1808 : Conversion Table Area Number Setup for Trunk Line Group
Assign the Trunk Group number for Conversion Table Area. (1-8)

> 1809 : DDI Transferred Destination Setup

Assign the (final) destination (Incoming Ring Group, Department Group or DUD / DISA) for each Conversion Table Area. (1-8)

> 1810 : DDI Operation Mode Setup

Assign the operation mode (disconnect or transfer) for each status (vacant number, busy, no-answer) per each Conversion Table. (1-400)

> 1814 : DDI Transfer Table-1 (1st Step)

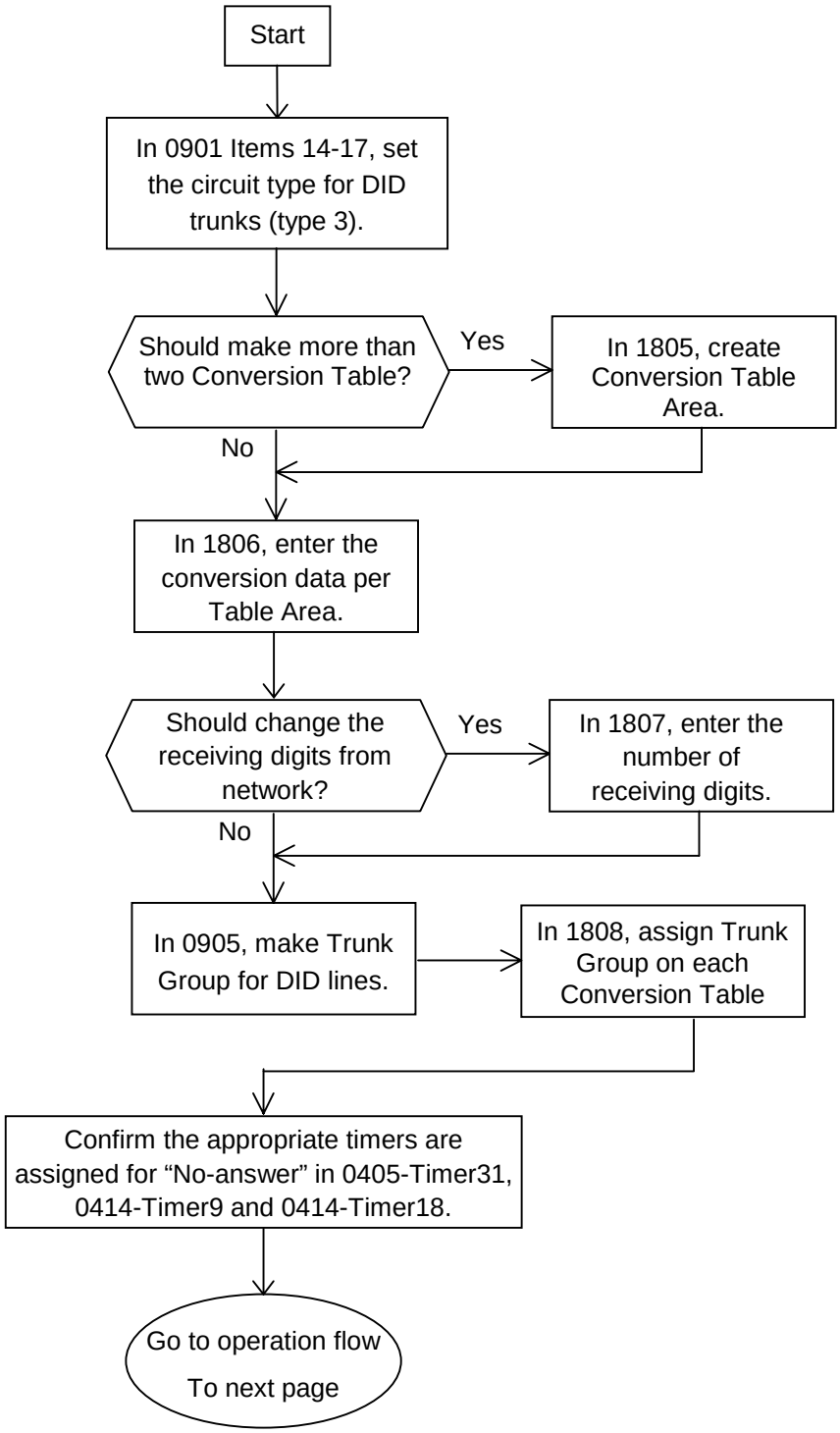
Assign the 1st destination (Incoming Ring Group, Department Group, DUD / DISA or Outside Party) for each Conversion Table. (1-400)

> 1815 : DDI Transfer Table-2 (2nd Step)

Assign the 2nd destination (Incoming Ring Group, Department Group, DUD / DISA or Outside Party) for each Conversion Table. (1-400)

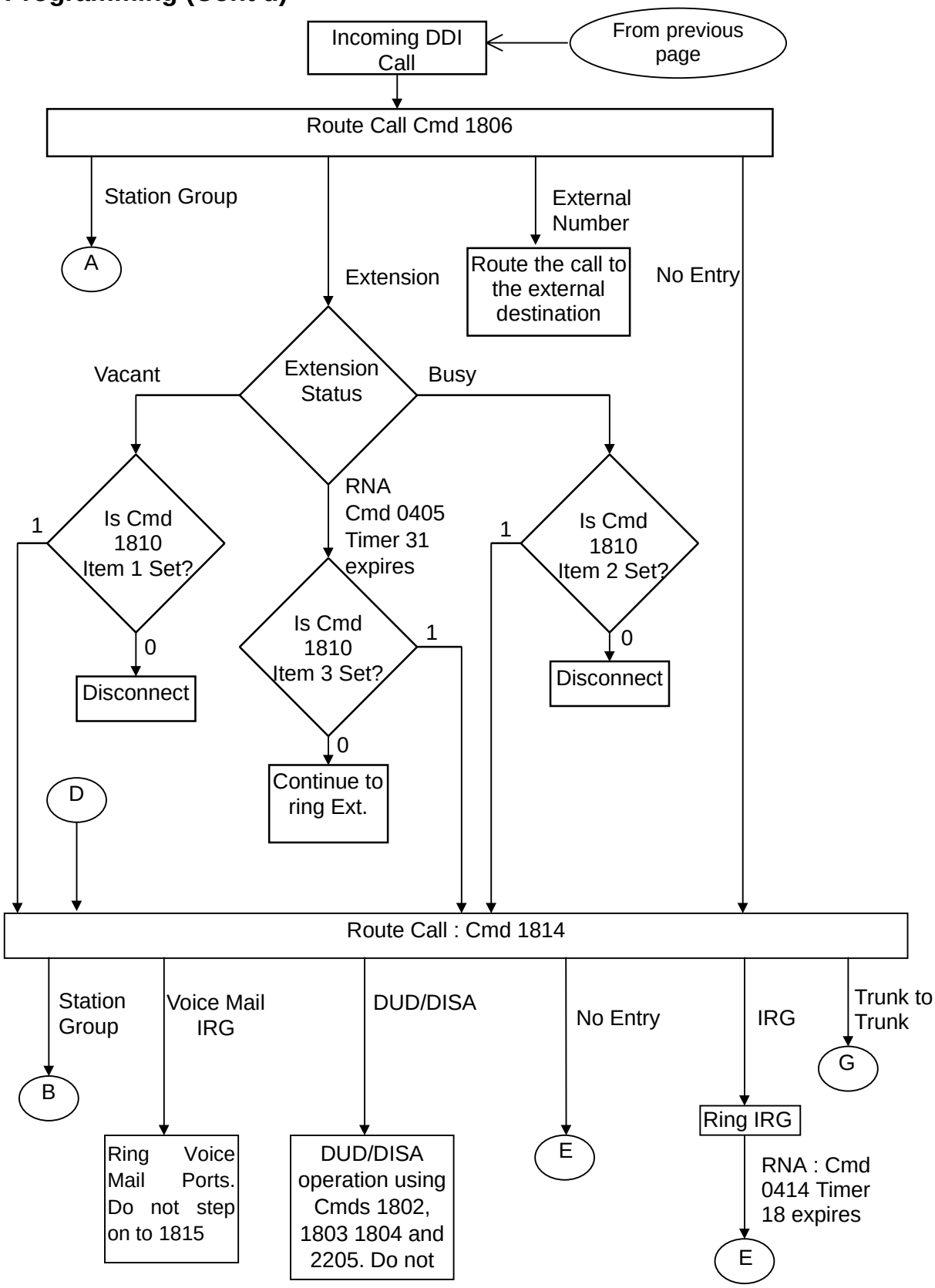
DID Capability (DDI Capability) (Cont'd)

Programming (Cont'd)


Start
In 0901 Items 14-17, set the circuit type for DID trunks (type 3).
Should make more than two Conversion Table?
Yes
In 1805, create Conversion Table Area.
No
In 1806, enter the conversion data per Table Area.
Should change the receiving digits from network?
Yes
In 1807, enter the number of receiving digits.
No
In 0905, make Trunk Group for DID lines.
In 1808, assign Trunk Group on each Conversion Table
Confirm the appropriate timers are assigned for "No-answer" in 0405-Timer31, 0414-Timer9 and 0414-Timer18.
Go to operation flow
To next page

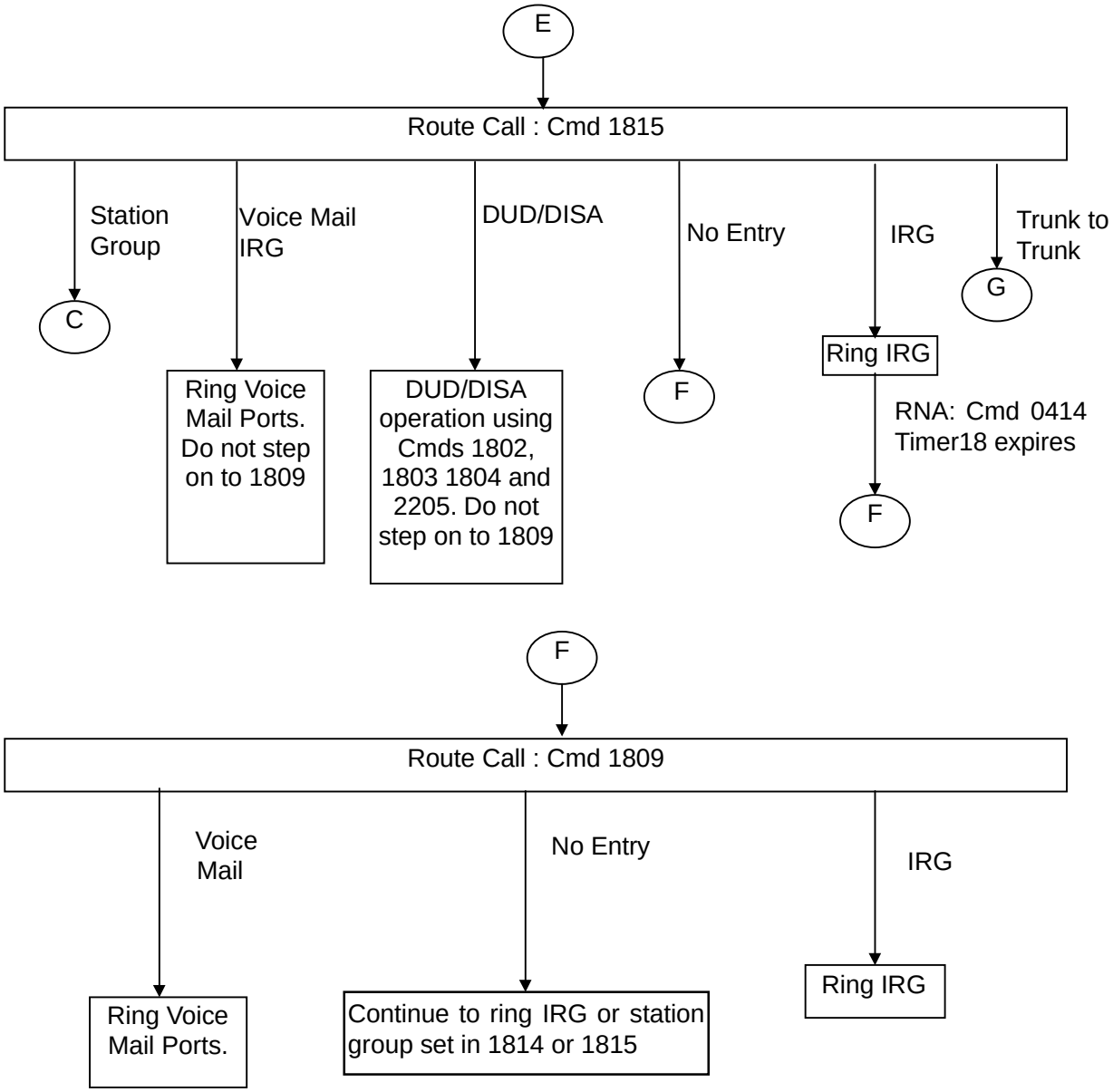
DID Capability (DDI Capability) (Cont'd)

Programming (Cont'd)



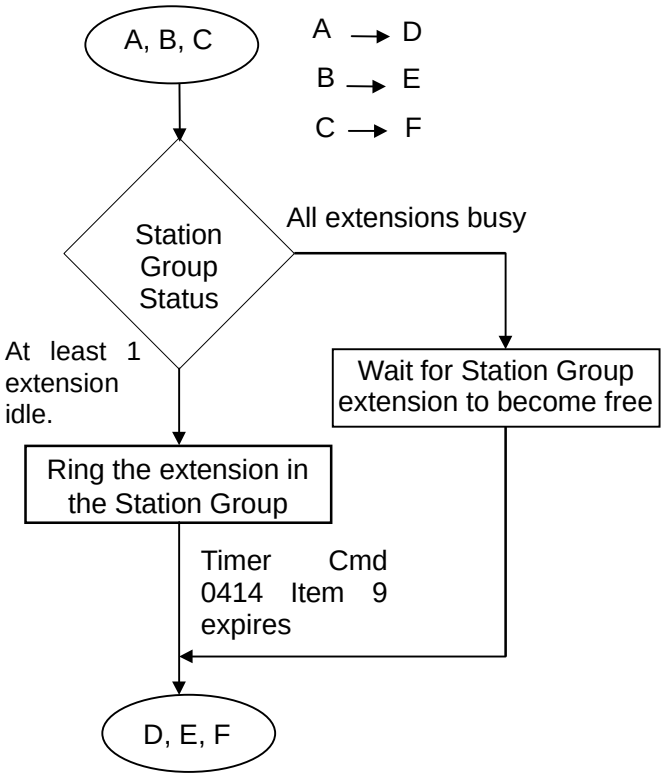
DID Capability (DDI Capability) (Cont'd)

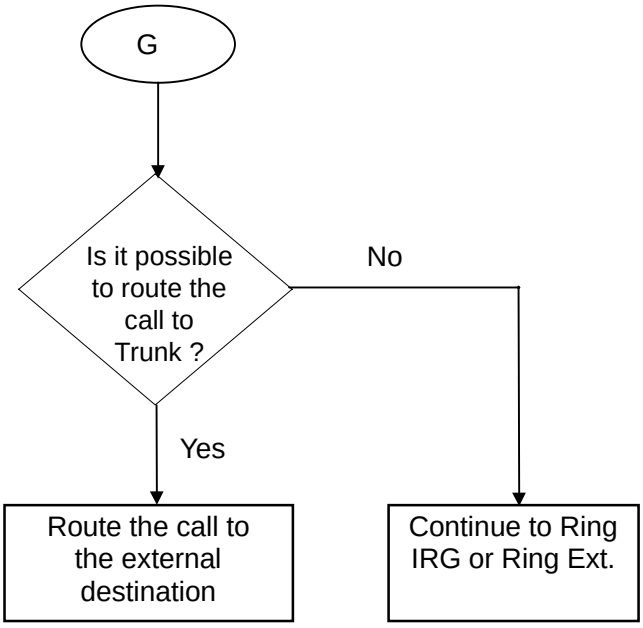
Programming (Cont'd)



DID Capability (DDI Capability) (Cont'd)

Programming (Cont'd)


A, B, C
A → D
B → E
C → F
Station Group Status
All extensions busy
At least 1 extension idle.
Wait for Station Group extension to become free
Ring the extension in the Station Group
Timer Cmd 0414 Item 9 expires
D, E, F


G
Is it possible to route the call to Trunk ?
No
Yes
Route the call to the external destination
Continue to Ring IRG or Ring Ext.

DID Capability (DDI Capability) (Cont'd)

Related Features

DUD (Direct Universal Dialing)

As one of the option for DDI conditional transfer (vacant/busy/no-answer), DUD feature can take place.

DISA (Direct Inward System Access)

As one of the option for DDI conditional transfer (vacant/busy/no-answer), DISA feature can take place.

Group Hunt

As one of the option for DDI conditional transfer (vacant/busy/no-answer), the call shall be transferred to the pilot number (station group).

PC Based Voice Mail Connection

As one of the option for DDI conditional transfer (vacant/busy/no-answer), the call shall be transferred to the pilot number of the PC based voice mail port.

Operation

None (This feature is for outside caller)

Direct Inward Line (DIL)

Description

A Direct Inward Line (DIL) is a Trunk Line that rings an extension directly. Since DILs only ring one extension, employees always know which calls are for them. For example, a company operator can have a Direct Inward Line for International Sales Information. When outside callers dial the DIL's phone number, the call rings the operator on the International Sales line key. The DIL does not ring other extensions.

DIL Delayed Ringing

Extensions in a Ring Group can have delayed ringing for another extension's DIL. If the DIL is not answered at its original destination, it rings the DIL No Answer Ring Group. This could help a Technical Service department, for example, that covers calls for an Inside Sales department. If the Inside Sales calls are not answered, they ring into the Technical Service department.

Conditions

This feature available for key telephone and single line telephone.

If unanswered, a DIL rings an extension until the outside party hangs up.

The DIL does not automatically reroute.

Default Setting

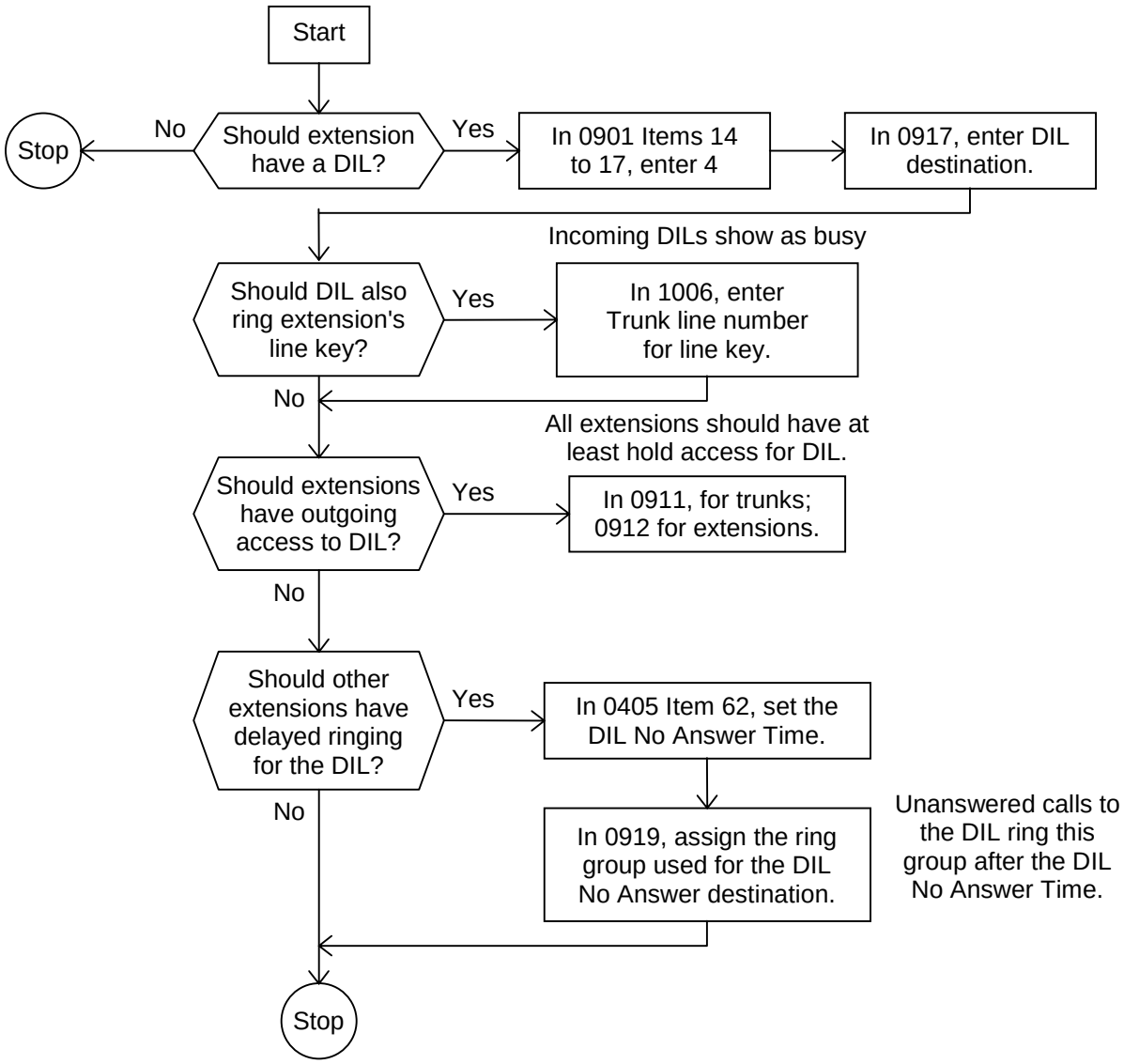
- DIL No Answer Time is 0 (disabled).
- No DILs programmed (0901 Items 14 to 17 = 0).
- All Trunk Line has extension port 1 as the DIL destination.
- All extensions have full access to all Trunk Line.
- No DIL No Answer Ring Groups Programmed.

Options

None

Direct Inward Line (DIL) (Cont'd)

Programming


Start
Should extension have a DIL?
No
Stop
Yes
In 0901 Items 14 to 17, enter 4
In 0917, enter DIL destination.
Incoming DILs show as busy
Should DIL also ring extension's line key?
Yes
In 1006, enter Trunk line number for line key.
No
All extensions should have at least hold access for DIL.
Should extensions have outgoing access to DIL?
Yes
In 0911, for trunks; 0912 for extensions.
No
Should other extensions have delayed ringing for the DIL?
Yes
In 0405 Item 62, set the DIL No Answer Time.
No
In 0919, assign the ring group used for the DIL No Answer destination.
Unanswered calls to the DIL ring this group after the DIL No Answer Time.
Stop

Direct Inward Line (DIL) (Cont'd)

Programming (Cont'd)

Refer to the Programming Flowchart on the Following Page

> 0405 – System Timers, Item 62: Normal or DIL incoming call no answer
Set DIL No Answer Time (0-64800 seconds). If DIL Delayed Ringing is set in program 0919, this option sets the DIL Delayed Ring interval.

> 0901 – Basic Trunk Line Port Setup, Part A
Item 14 to 17: Service Type
Assign each DIL Service Type 4. Make an entry for each Night Service mode.

> 0911 – Trunk Line Access Map Setup
Set up the Trunk Line Access Maps. All extensions should have at least Hold access to the DIL (entry 3). Without Hold access, transferred DILs and DILs on hold can be answered only while they are ringing or recalling.

> 0912 – Extension Access Map Assignment
Assign Trunk Line Access Maps (1-16) to extensions.

> 0917 – DIL Assignment
Set the destination extension for each DIL. You make a different entry for each Night Service mode.

> 0919 – DIL No Answer Destination
For each DIL with delayed ringing, enter the DIL No Answer Ring Group.
An unanswered DIL rings this group after the DIL No Answer Time.
Make an entry for each Night Service mode.

> 1006 – Programming Function Keys
To have the DIL ring a key, program a line key for the DIL trunk.

Related Features

Call Forward

Call Forward does not reroute DILs. If an extension forwards their Trunk Line calls, the Trunk Line rings according to Ring Group programming.

Trunk Outgoing Call

You can place DILs in Trunk Line Group to make outgoing DIL calls easier.

Group Hunt

A DIL cannot have an Extension (Department) Group as its destination.

Do Not Disturb

If a DILs destination extension is in DND, an incoming call rings according to Ring Group programming.

Call Pickup

A user can activate group Call Pickup to intercept a DIL ringing another extension.

Direct Inward Line (DIL) (Cont'd)

Related Features (Cont'd)

Name Storing

Program a name for a DIL. This makes it easier to identify the incoming call.

Private Line

To simulate Private Line operation, create a unique Access Map for the DIL that allows full access only for the destination. Give all other extensions only Hold access.

Programmable Function Key

If an extension has a line key for a DIL, the call will ring the key.

If not, the call rings an available line appearance. For other extensions, the DIL indicates as busy.

Ring Groups

A DIL will ring its assigned extension without Ring Group programming.

A DIL only rings at assigned extension. It will not ring other extensions in a Ring Group.

Operation

<Key Telephone>

To answer a call on your Direct Inward Line:

1. Lift handset
2. Press flashing line key for DIL.

   If you don't have a line key for the DIL, the DIL rings an idle CL key.

   If you have Ringing Line Preference, lifting the handset answers the call.

   If you don't answer the call, it may ring other extensions (i.e., DIL No Answer Ring Group.)

To place a call on your Direct Inward Line:

1. Lift handset.
2. Press line key for DIL

   OR

   Dial 805( ) and the DIL Trunk Line number (e.g. 05).

   OR

   Dial 804( ) and the DIL Trunk Line group number (e.g. 05).

   OR

   Dial 9 for Trunk Line Group Access
3. Dial telephone number.

Direct Inward Line (DIL) (Cont'd)

Operation (Cont'd)

<Single Line Telephone>

To answer a call on your Direct Inward Line:

1. Lift handset
2. Press flashing line key for DIL.

   If you have Ringing Line Preference, lifting the handset answers the call.

   If you don't answer the call, it may ring other extensions (i.e., DIL No Answer Ring Group.)

To place a call on your Direct Inward Line:

1. Lift handset.
2. Dial 805( ) and the DIL Trunk Line number (e.g. 05).

   OR

   Dial 804( ) and the DIL Trunk Line group number (e.g. 05).

   OR

   Dial 9 for Trunk Line Group Access
3. Dial telephone number.

Directory Dialing

Description

When you place a call, you can choose the destination by the name, if your type of phone is Super Display Phone (Large Display keyphone). Either intercom or trunk line call can be placed by the name directory.

Conditions

Only 24-key Super Display Phone (Large Display Keyphone) <see *Reference>

Default Setting

- The feature is provided. (not optional)

Options

None

Programming

> 0502 : Extension Number and Name
Enter the Name for extension.
> 0603 : Abbreviated Dialing Number and Name
Put the Name on abbreviated number.

Related Features

Abbreviated Dialing

The name for each abbreviated number has to be entered.

Operation

Refer to "*Concise Instruction Manual" (How To Use The Key Telephone)* <attached to each keyphone> page25 and 26 for the details.

*<*Reference>*

For the future enhancement, this function (for trunk call with the name of abbreviated number) will be provided to Executive Keyphone (with standard display) with referring to the alphabet character on the keypad.

Direct Station Selection

Description

Direct Station Selection key (DSS key) shall be assigned to the function key on any keyphone. The key shows idle/busy status of the programmed extension by BLF (Busy Lamp Field) indication. (LED ON: busy, LED OFF: idle) When the key LED shows off state, the programmed extension can be called by simply pressing the key.

Conditions

This feature is available only for key telephone.

Default Setting

- No DSS key is assigned.

Options

None

Programming

> 1006 – Programming Function Keys
Assign DSS keys:
Code 1058 (+ extension number) for DSS key

Related Features

DSS Console / DLS Console

For these consoles, the key (for extension/line) assignment have to be programmed in the system programming. But, DSS key can be set at the keyphone as he/she likes.

Operation

<Key Telephone>

To monitor the extension's status:

1. Look at the DSS key (PGM 1006 or SC 851: 1058+xxx, xxx = extension number)
<Status> LED ON: busy/ring, LED OFF: idle

To place intercom to the extension:

(When the LED shows OFF)
1. Press the DSS key (PGM 1006 or SC 851: 1058+xxx, xxx = extension nunber)

Distinctive Ringing (Tone & Flash Patterns)

Description

Distinctive Ringing (Tone & Flash Patterns) provide extension users with audible and visual call status signals. This lets users tell the types of calls by listening to the ringing/tones and watching the keys.

It also helps users monitor the progress of their calls. In addition, Distinctive Ringing lets keyset users customize their Intercom and Trunk Line call ringing. This is helpful for users that work together closely. For example, if several co-workers set their keysets to the following tables at different pitches, the co-workers can always tell which calls are for them.

Refer to the following tables at the beginning of this section:

Table 1-3 System Tones

Table l-5 System Ring Rates

Table l-6 System Rash Rates

Conditions

This feature available for Key Telephone.

Default Setting

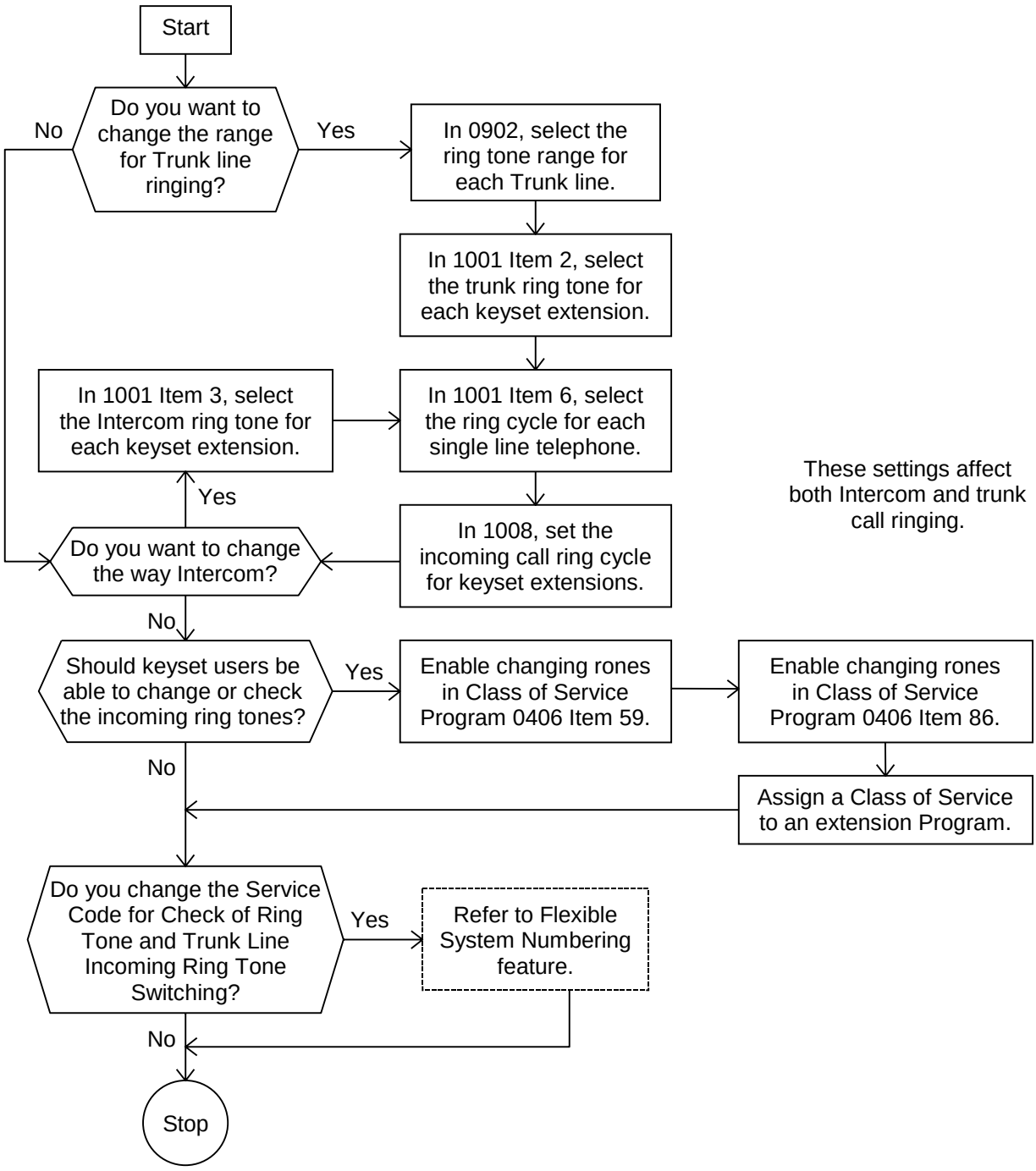
- An extension's Class of Service allows selecting the incoming ring tones.
- An extension's Class of Service prevents checking the incoming ring tone choices.
- Trunk Line ring keysets with Ring Tone Range l, tone Medium (see Table 1-6).
- Extensions ring keysets with tone Medium.
- Calls ring Single Line Telephone sets with long bursts.
- Calls ring keysets with two bursts followed by a pause.
- Service Code of Trunk line incoming ring tone switching is dial 820.
- Service Code of ring tone is dial 811.

Options

None

Distinctive Ringing (Tone & Flash Patterns) (Cont'd)

Programming


Start
Do you want to change the range for Trunk line ringing?
No
Yes
In 0902, select the ring tone range for each Trunk line.
In 1001 Item 2, select the trunk ring tone for each keyset extension.
In 1001 Item 6, select the ring cycle for each single line telephone.
In 1001 Item 3, select the Intercom ring tone for each keyset extension.
Yes
In 1008, set the incoming call ring cycle for keyset extensions.
Do you want to change the way Intercom?
No
These settings affect both Intercom and trunk call ringing.
Should keyset users be able to change or check the incoming ring tones?
Yes
Enable changing rones in Class of Service Program 0406 Item 59.
Enable changing rones in Class of Service Program 0406 Item 86.
No
Assign a Class of Service to an extension Program.
Do you change the Service Code for Check of Ring Tone and Trunk Line Incoming Ring Tone Switching?
Yes
Refer to Flexible System Numbering feature.
No
Stop

Distinctive Ringing (Tone & Flash Patterns) (Cont'd)

Programming (Cont'd)

> 0406 – COS Options, Item 59: Ringing Tone Selection
In an extension's Class of Service, enable (1) or disable (0) an extension's ability to change the incoming ring tones.

> 0406 – COS Options, Item 86: Checking incoming ring tone
In an extension's Class of Service, enable (1) or disable (0) an extension's ability to check the selectable Ring tones.

> 0511 – Service Code Setup, Part A
Item 59: Trunk line incoming ring tone switching
Assign a service code of changing Trunk line incoming ring tone.

> 0511 – Service Code Setup, Part A Item 80: Check of ringing tone
Assign a service code of ringing tone check.

> 0902 – Trunk Line Ring Tone
Set the ring tone range (1-4) for each Trunk Line.

> 1001 – Basic Extension Port Setup (Part A)
Item 2: Trunk Line Incoming Ring Type
From the range specified in Program 0902, select the keyset extension's Trunk Line ring tone (High = 1, Med = 2, Low = 3). Refer also to "Trunk Line Ring Tone" on Table l-6.

> 1001 – Basic Extension Port Setup (Part A), Item 3: Extension Incoming Ring Type
Select the extension's intercom ring tone (High = l, Med = 2, Law = 3).
Refer to "Extension Ring Tone Range" on Table 1-6.

> 1001 – Basic Extension Port Setup (Part A), Item 6: Ringing Cycle
Select the incoming call ring cycle for Single Line Telephone sets.
The choices are 0 (short bursts) or 1 (long bursts).

> 1005 – Class of Service for Extension
Assign a Class of Service (1-10) to an extension.

> 1008 – Basic Extension Port Setup (Part B), Item 4: Ringing Tone Cycle
Set the incoming call ring cycle for each keyset extension. The choices are two bursts with a pause (0), continues (1) or single short burst with a pause (2).

Distinctive Ringing (Tone & Flash Patterns) (Cont'd)

Operation

<Key Telephone>

To listen to the incoming ring choices:

1. Press idle CL key.
2. Dial 811( ).
3. Dial 1 to check ringing for Intercom calls.

   OR

   Dial 2 to check ringing for Trunk Line calls.
4. For Intercom calls, select the pitch (1 = High, 2 = Medium, 3 = Low) and the range (1-4) you want to check.

   Refer to Table 1-6 for the four Trunk Line Ringing Tone Ranges and the selections within each range.
5. Go back to step 4 to listen to additional choices or press SPK to hang up.

To change the pitch of your incoming ring:

1. Press idle CL key.
2. Dial 820( ).
3. Dial 1 to change ringing for Intercom calls.

   OR

   Dial 2 to change ringing for Trunk Line calls.
4. Select the pitch (1 = High, 2 = Medium, 3 = Low).
5. Press SPK to hang up.

<Single Line Telephone>

This feature only available for Key Telephone.

DISA (Direct Inward System Access)

Description

DISA permits outside callers to directly dial system extensions or to place Trunk line calls through the system or other few features.

The system allows 10 classes of Service for DISA and 15 passwords for DISA. A DISA password can have a different Class at Service for DISA for each of the Night Service modes.

This helps outside callers that know the extension numbers of the people and each feature access code they want to reach. For example, a salesperson can call their in-house assistant directly-without going through a company operator. To use DISA, the outside caller;

- Dials the telephone number that rings the DISA Trunk Line
- Waits for the DISA Trunk Line to automatically answer with a unique dial tone
- Dials the 6-digit DISA password (access code)
- Dials the system extension directly or feature access service code.

- **DUD/DISA Talkie**

  This system can be automatic announce to DISA caller from DUD/DISA Talkie. DUD/DISA Talkie can be assigned 3 port ACI ,SLT port or VAU.

  Audio system (ex. Tape recorder) connected to 3 port ACI. Automatic answer system (ex. Automatic answering telephone) connected to SLT port. DUD/DISA Talkie announces extension numbers and service codes to DISA caller for practical use.

  To use DISA with DISA Talkie, the outside caller:

  - Dials the telephone number that rings the DISA Trunk Line
  - Waits for the DISA Trunk Line to automatically answer with a unique dial tone
  - Dials the 6-digit DISA password (access code)
  - Hears guidance message from DISA Talkie. (e.x. extension numbers for each member and feature access service code.
  - Hears unique dial tone again.
  - Dials the system extension directly or feature access service code.

- **Answering Extension Call for DISA**

  DISA calls ring system extensions like other outside calls. If an extension has a line key for the DISA Trunk Line, the call rings that key. If the extension does not have a line key, the call rings an idle CL key.

- **Automatic Transfer to Incoming Ring Group conditionally**

  If DISA call is not completed due to dial tone time-over, busy/no-answer or wrong number, the system automatically shall transfer it to incoming ring group as programmed.

DISA (Direct Inward System Access) (Cont'd)

Description (Cont'd)

- **Night Service for Trunk Line Type**

  You can set DISA operation differently for each Night Service mode.

  For example, a Trunk Line can be a normal Trunk Line during the day and a DISA Trunk Line at night. You can also set the routing for DISA Trunk Line when the caller dials a busy or unanswered extension, dials incorrectly or forgets to dial.

- **Trunk to Trunk Transfer for DISA**

  DISA caller can be transferred to another Trunk line by operating their telephone set.

  DISA caller can place a call by:

  - Dialing a Trunk Line Group Access Code
  - Dialing a Trunk Line Group Routing Code.

  The system provides flexibility in the way each DISA Class No. can place Trunk to Trunk Transferring Trunk line.

  This system applies Toll Restriction according to User number for DISA password class.

- **Trunk to Trunk Transfer by Abbreviated Dialing**

  DISA caller can be dialing to another Trunk line by Common Abbreviated Dialing.

- **Continued Code for Trunk to Trunk Transfer**

  This system automatically disconnects call for Trunk to Trunk Transfer after DISA Conversation time and DISA Disconnect time. When you would like continued conversation, you dial Continued Code. To use DISA, the outside caller:

  - Place a Trunk to Trunk Transfer for DISA.
  - Heard 1 sec signal tone after DISA Conversation time.
  - Dial Continued Code (1 digit) within DISA conversation disconnect time. Permitted Conversation time renewed. (If you did not dial Continued Code, automatic disconnected Trunk line for Trunk to Trunk Transfer.)
  - When you would like finish conversation, dial disconnect code (1 digit). (If you did not dial disconnect code, automatic disconnect Trunk lines for Trunk to Trunk Transfer after DISA Conversation time and DISA Disconnect time.)
  - On hook.

- **1 Digit Access on DUD / DISA (VAU)**

  Any extensions can be defined as 1 digit which to be dialed from outside caller on DUD / DISA with VAU Adaptor. The outside caller is able to access to the desired extension / department group by dialing only 1 digit after the system automatically answered.

  Note: If same number is used for 1st digit of extension number and 1digit access code on DUD/DISA, out side caller can not access directly to the extension.

  Example, if 1 digit access code "2" is assigned to department group "300", outside caller can not access to extension 200 to 299 directly.

  Because outside caller tries to dial extension 200, however after dialing "2", it goes to department "300" immediately by 1 digit access function.

DISA (Direct Inward System Access) (Cont'd)

Conditions

The DISA caller must use a telephone with DTMF sender.
This feature available for outside caller.

Default Setting

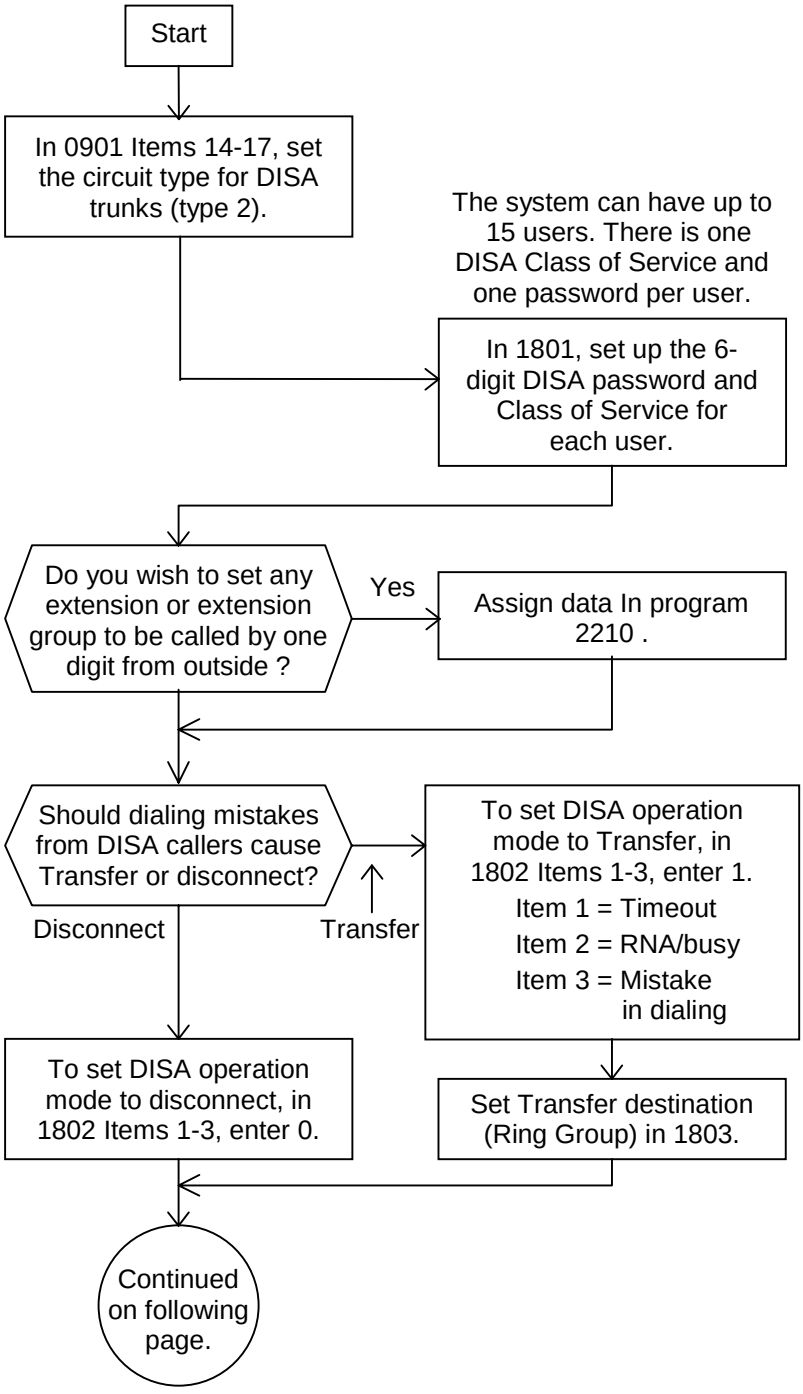
- No DTMF receive blocks reserved for analog trunk DTMF reception.
- The DTMF Receiver Active Time is 10 seconds.
- The DISA Dial Tone Time is seconds.
- The DISA No Answer Time is 10 seconds.
- The DISA Internal Paging Time is 30 seconds.
- The DISA External Paging Time is 30 seconds.
- DISA Trunk Line not programmed.
- No DISA password set.
- All DISA password have not Class of Service.
- All DISA class disabled all features.
- No assigned DISA Continued Code.
- No assigned DISA Disconnect Code.
- The DISA Trunk to Trunk Conversation duration is 30 seconds.
- The DISA Trunk to Trunk Conversation Disconnect duration is 15 seconds.
- DUD/DISA Talkie no assigned.

Options

DX2E-4DTDU-S1
DX2E-3ACI-A1 or DX2E-4ASTU-S1 (If you use DUD/DISA Talkie)
DX2E-VAU-A (If you use 1 digit Access on DUD/DISA(VAU) with Talkie)
DX2E-VAU-B (to be used to expand the talk path)

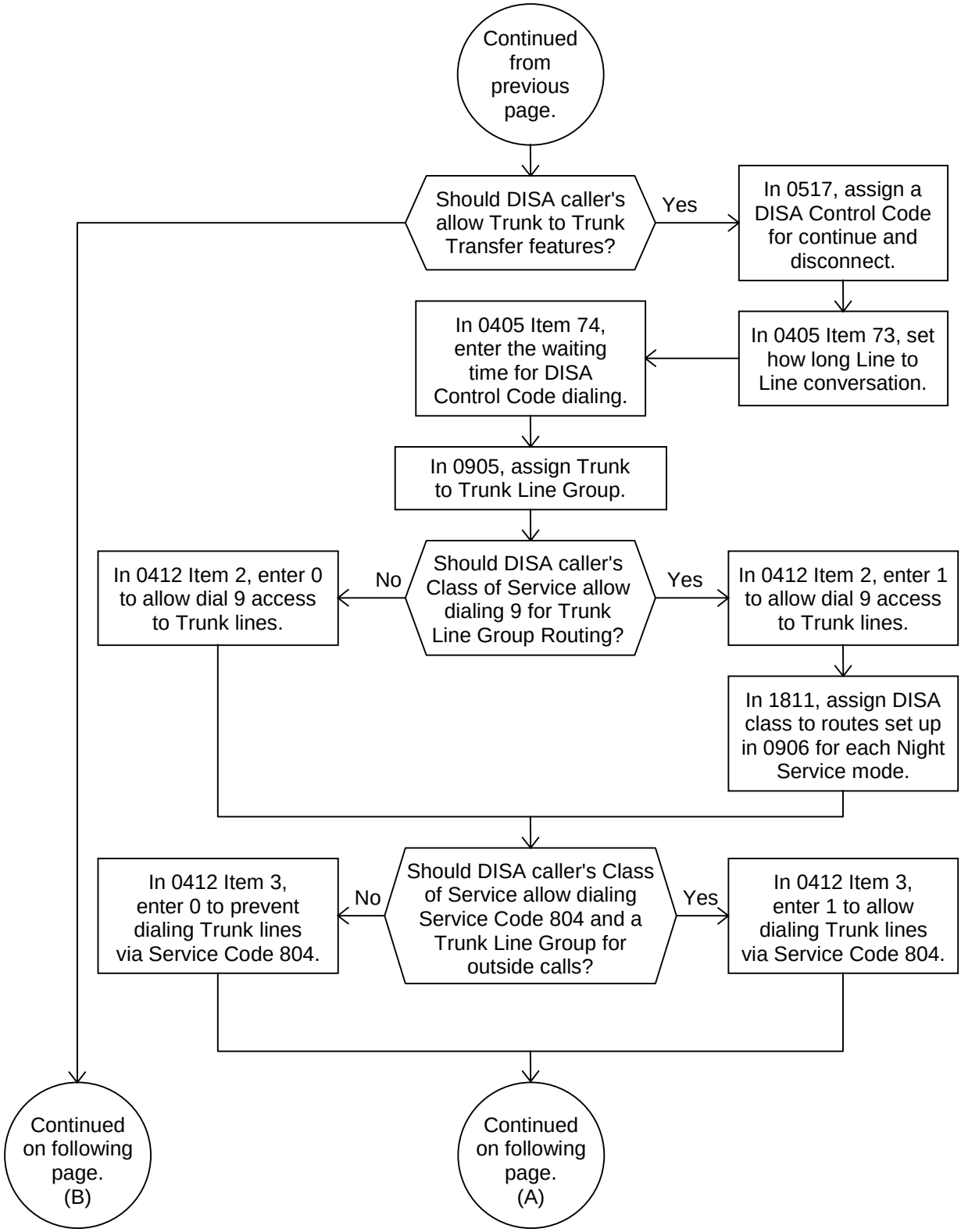
DISA (Direct Inward System Access) (Cont'd)

Programming


Start
In 0901 Items 14-17, set the circuit type for DISA trunks (type 2).
The system can have up to 15 users. There is one DISA Class of Service and one password per user.
In 1801, set up the 6-digit DISA password and Class of Service for each user.
Do you wish to set any extension or extension group to be called by one digit from outside ?
Yes
Assign data In program 2210 .
Should dialing mistakes from DISA callers cause Transfer or disconnect?
Disconnect
Transfer
To set DISA operation mode to Transfer, in 1802 Items 1-3, enter 1.
Item 1 = Timeout
Item 2 = RNA/busy
Item 3 = Mistake in dialing
To set DISA operation mode to disconnect, in 1802 Items 1-3, enter 0.
Set Transfer destination (Ring Group) in 1803.
Continued on following page.

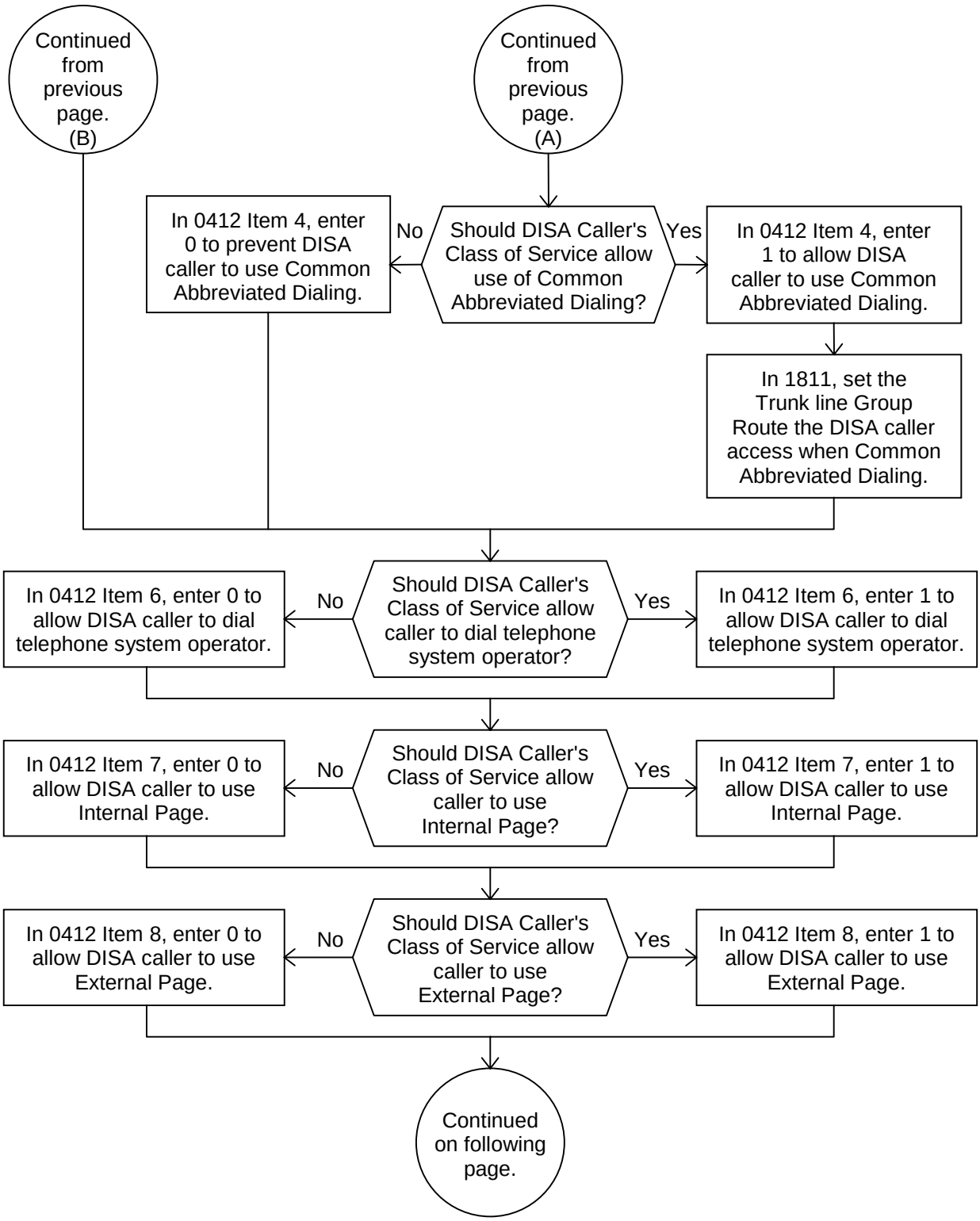
DISA (Direct Inward System Access) (Cont'd)

Programming (Cont'd)


Continued from previous page.
Should DISA caller's allow Trunk to Trunk Transfer features?
Yes
In 0517, assign a DISA Control Code for continue and disconnect.
In 0405 Item 73, set how long Line to Line conversation.
In 0405 Item 74, enter the waiting time for DISA Control Code dialing.
In 0905, assign Trunk to Trunk Line Group.
Should DISA caller's Class of Service allow dialing 9 for Trunk Line Group Routing?
No
In 0412 Item 2, enter 0 to allow dial 9 access to Trunk lines.
Yes
In 0412 Item 2, enter 1 to allow dial 9 access to Trunk lines.
In 1811, assign DISA class to routes set up in 0906 for each Night Service mode.
Should DISA caller's Class of Service allow dialing Service Code 804 and a Trunk Line Group for outside calls?
No
In 0412 Item 3, enter 0 to prevent dialing Trunk lines via Service Code 804.
Yes
In 0412 Item 3, enter 1 to allow dialing Trunk lines via Service Code 804.
Continued on following page. (B)
Continued on following page. (A)

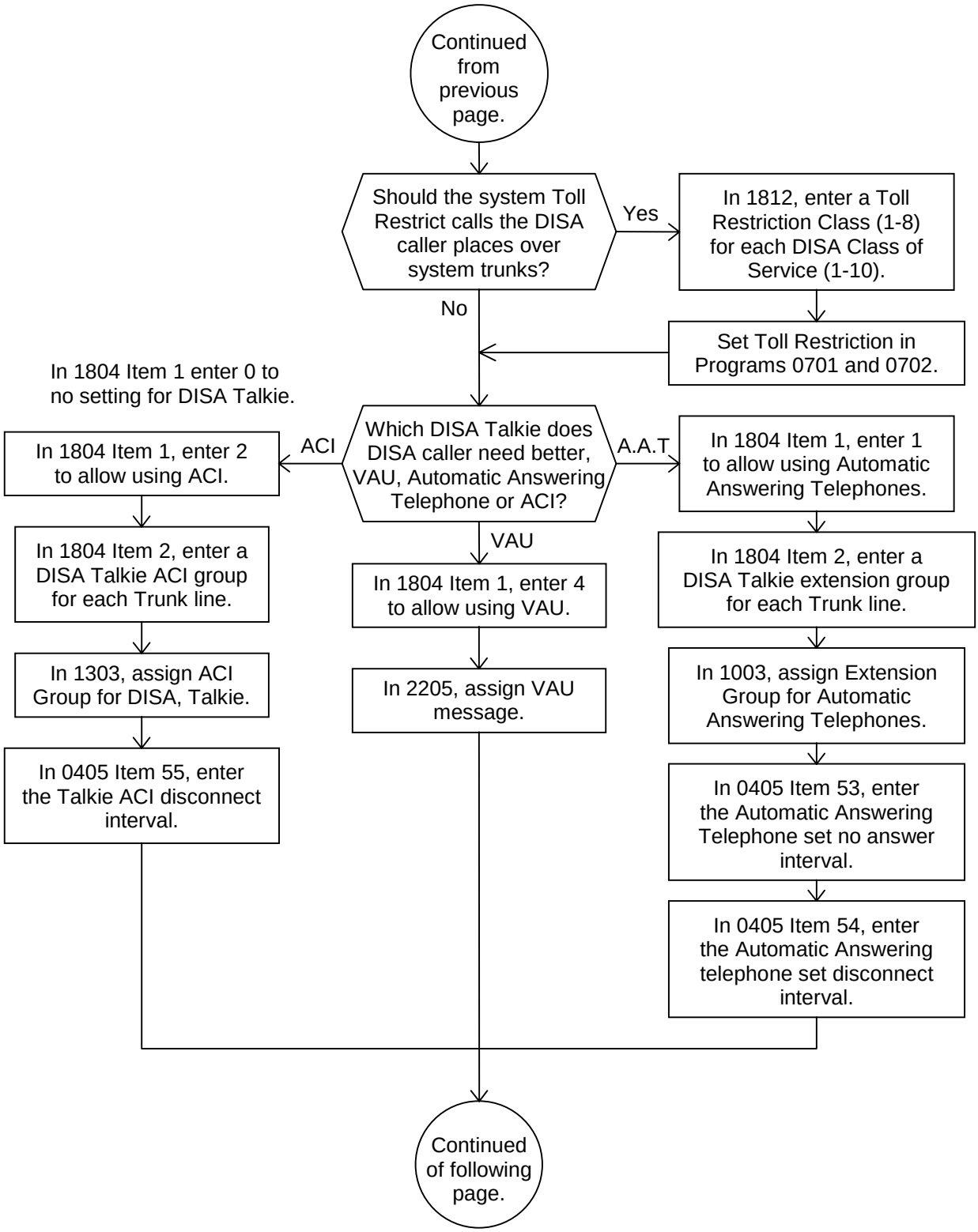
DISA (Direct Inward System Access) (Cont'd)

Programming (Cont'd)


Continued from previous page. (B)
Continued from previous page. (A)
Should DISA Caller's Class of Service allow use of Common Abbreviated Dialing?
No
In 0412 Item 4, enter 0 to prevent DISA caller to use Common Abbreviated Dialing.
Yes
In 0412 Item 4, enter 1 to allow DISA caller to use Common Abbreviated Dialing.
In 1811, set the Trunk line Group Route the DISA caller access when Common Abbreviated Dialing.
Should DISA Caller's Class of Service allow caller to dial telephone system operator?
No
In 0412 Item 6, enter 0 to allow DISA caller to dial telephone system operator.
Yes
In 0412 Item 6, enter 1 to allow DISA caller to dial telephone system operator.
Should DISA Caller's Class of Service allow caller to use Internal Page?
No
In 0412 Item 7, enter 0 to allow DISA caller to use Internal Page.
Yes
In 0412 Item 7, enter 1 to allow DISA caller to use Internal Page.
Should DISA Caller's Class of Service allow caller to use External Page?
No
In 0412 Item 8, enter 0 to allow DISA caller to use External Page.
Yes
In 0412 Item 8, enter 1 to allow DISA caller to use External Page.
Continued on following page.

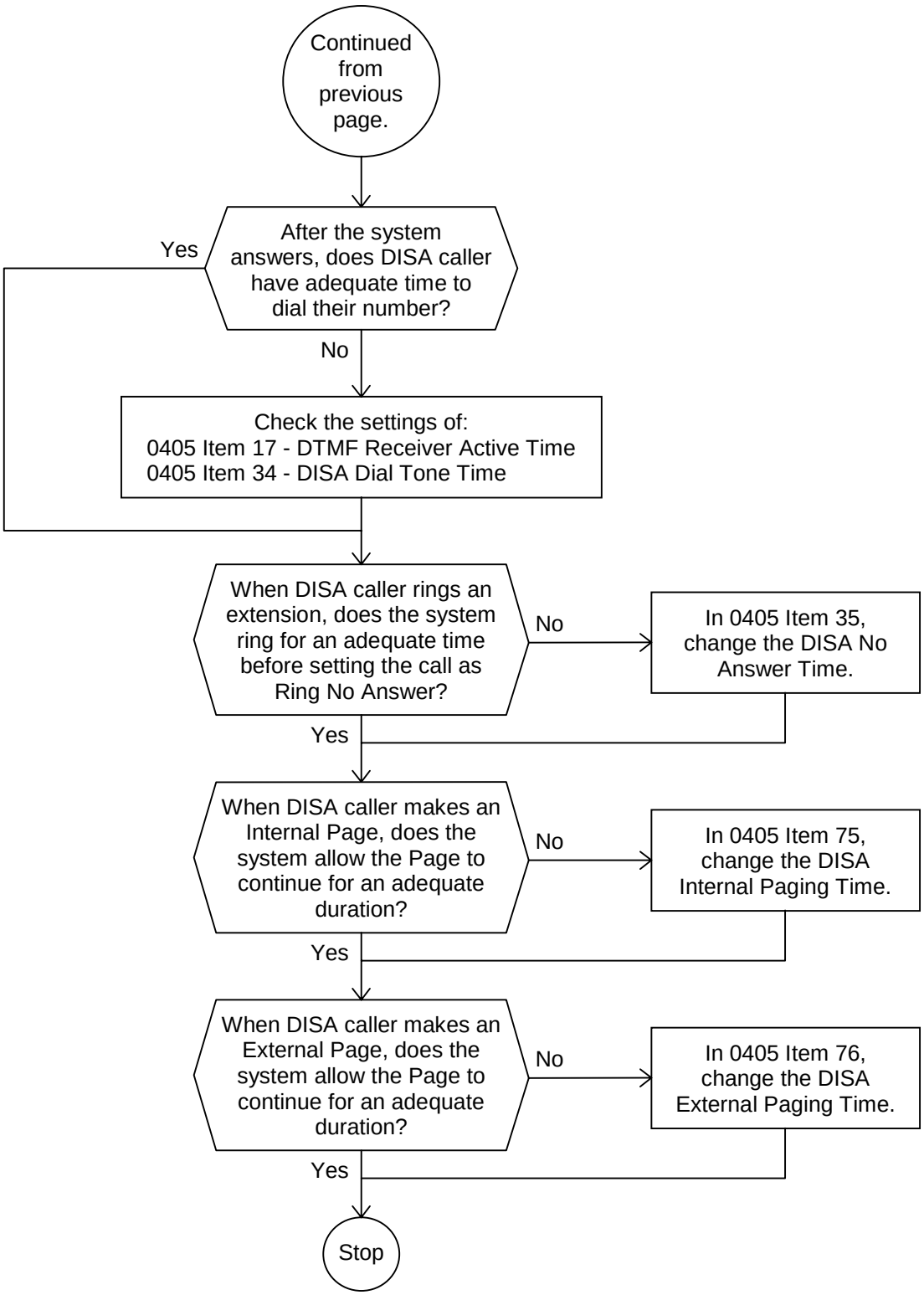
DISA (Direct Inward System Access) (Cont'd)

Programming (Cont'd)


Continued from previous page.
Should the system Toll Restrict calls the DISA caller places over system trunks?
Yes
In 1812, enter a Toll Restriction Class (1-8) for each DISA Class of Service (1-10).
No
Set Toll Restriction in Programs 0701 and 0702.
In 1804 Item 1 enter 0 to no setting for DISA Talkie.
Which DISA Talkie does DISA caller need better, VAU, Automatic Answering Telephone or ACI?
ACI
A.A.T
VAU
In 1804 Item 1, enter 2 to allow using ACI.
In 1804 Item 2, enter a DISA Talkie ACI group for each Trunk line.
In 1303, assign ACI Group for DISA, Talkie.
In 0405 Item 55, enter the Talkie ACI disconnect interval.
In 1804 Item 1, enter 4 to allow using VAU.
In 2205, assign VAU message.
In 1804 Item 1, enter 1 to allow using Automatic Answering Telephones.
In 1804 Item 2, enter a DISA Talkie extension group for each Trunk line.
In 1003, assign Extension Group for Automatic Answering Telephones.
In 0405 Item 53, enter the Automatic Answering Telephone set no answer interval.
In 0405 Item 54, enter the Automatic Answering telephone set disconnect interval.
Continued of following page.

DISA (Direct Inward System Access) (Cont'd)

Programming (Cont'd)


Continued from previous page.
After the system answers, does DISA caller have adequate time to dial their number?
Yes
No
Check the settings of:
0405 Item 17 - DTMF Receiver Active Time
0405 Item 34 - DISA Dial Tone Time
When DISA caller rings an extension, does the system ring for an adequate time before setting the call as Ring No Answer?
No
In 0405 Item 35, change the DISA No Answer Time.
Yes
When DISA caller makes an Internal Page, does the system allow the Page to continue for an adequate duration?
No
In 0405 Item 75, change the DISA Internal Paging Time.
Yes
When DISA caller makes an External Page, does the system allow the Page to continue for an adequate duration?
No
In 0405 Item 76, change the DISA External Paging Time.
Yes
Stop

DISA (Direct Inward System Access) (Cont'd)

Programming (Cont'd)

> 0405 – System Timers, Part A, Item 17: DTMF receiver active timer
After answering the call, the system attaches a DTMF receiver to the DISA Trunk Line for this interval (0-64800 seconds).

> 0405 – System Timers, Part A, Item 34: DUD, DISA dial tone
After answering the DISA trunk, the system waits this interval (0-64800 seconds) for the caller to dial the first digit of password. If the caller to dial within this interval, the system drops the call.

> 0405 – System Timers, Part A, Item 35: DUD, DISA Answer
A DISA caller can ring an extension for this interval (0-64800 seconds) before the system sets the call as a Ring No Answer. After this interval expires, the call follows the programmed Ring No Answer routing (see Program 1802 below).

> 0405 – System Timers, Part A, Item 53: Automatic answering telephone set no answer
Set the answering waiting time of automatic answering telephone after DISA caller dial DISA password.

> 0405 – System Timers, Part A, Item 54: Automatic answering telephone set disconnect
Set the announcement time of automatic answering extension, when incoming DUD Trunk line (0-64800 seconds).

> 0405 – System Timers, Part A, Item 55: Talkie ACI disconnect
Set the message sending time from ACI.

> 0405 – System Timers, Part A, Item 73; DISA Conversation
Set the time by the time heard next 1 sec signal tone after Continued Code dialing, when DISA caller use Trunk to Trunk Transfer.

> 0405 – System Timers, Part A, Item 74: DISA Conversation Disconnect
Set the waiting time for disconnect, if DISA caller should not dial Continued Code.

> 0405 – System Timers, Part A, Item 75: DISA Internal Paging
This is the maximum length of an Internal Page placed by a DISA caller.
If the Page continues longer than this interval (0-64800 seconds), the system terminates the DISA call.

> 0405 – System Timers, Part A, Item 76: DISA External Paging
This is the maximum length of an External Page placed by a DISA caller.
If the Page continues longer than this interval (0-64800 seconds), the system terminates the DISA call.

> 0405 – System Timers, Part A, Item 79: DUD/DISA answer delay timer
Setup the interval time, from the system receive the DUD/DISA incoming Call until the system automatically answer.

> 0405 – System timers, Part A, Item 80: DUD/DISA Group Hunt no answer time
Setup the calling time for department groups pilot number.

> 0412 – COS for DISA Passwords
Enable or disable the following options for each DISA Class of Service
- Rout access for Trunk line
- Group access for Trunk line
- Common abbreviated dialing
- Operator call

DISA (Direct Inward System Access) (Cont'd)

Programming (Cont'd)

- Internal paging
- External paging

> 0414 – System timers, part B, Item 3: DUD/DISA busy tome timer
Setup the busy tone sending time when outside Caller dial the busy extension.

> 0517 – DISA Control Code
Assign a DISA continue code and DISA disconnect code (up to one digit).

> 0901 – Basic Trunk Line Port Setup, Part A Item 14-17: Service Type
For DISA operation, set the Trunk Line service type to 02. You can have a different service type for each Night Service mode.

> 1801 – DISA Password Setup
For each DISA user, set the 6-digit password and DISA Class of Service for each user.
There are 15 users, with one password and DISA Class of Service for each user. This allows for up to 60 assignments. The DISA Class of Service cannot be 0.
You cannot use Programs 0406 and 1005 to assign Class of Service to DISA trunks.

> 1802 – DUD, DISA Operation Mode Setup
Set the operating mode. This sets what happens to the call when the DISA caller doesn't dial (condition l), calls a busy or unanswered extension (condition 2), dial incorrectly (condition 3).
The call can either disconnect (0) or Transfer to an alternate destination (1). Set alternate destination in program 1803.

> 1803 – DUD, DISA Transfer Ring Group Setup
If you set a DISA Trunk Line operating mode at 1, use this program to assign the ring group that is the transfer destination. You make a different entry for each Night Service mode.

> 1804 – DUD, DISA Talkie
Assign DUD, DISA Talkie type and extension group for Talkie.

> 1811 – Trunk Line Route Setting for DISA Trunk.
User this program to assign the Trunk Group Route (1-36) chosen when a user places a DISA call into the system and dials 9. Set Trunk Line Group Routing in Program 0906. The rout chosen is based on the DISA Class of Service, which is determined by the password the caller dials.

> 1812 – Setting of DISA Restriction
If the system uses Toll Restriction, enter a Toll Restriction Class (1-8).
The system uses the Toll Restriction Class you enter in Program 0701. The Toll Restriction Class assigned to a DISA call is based on the DISA Class at Service, which is determined by the password the caller dials. You cannot use Program 1004 to assign Toll Restriction to DISA trunks.

> 2205 – Automated Attendant Message assignment
Assign the VAU message number which is used Automated Attendant Message for DISA caller from VAU.

DISA (Direct Inward System Access) (Cont'd)

Programming (Cont'd)

> 2210 – VAU 1 Digit Code

Assign extension / department group to be called by 1 digit (1 to 0, ∗ and #) from outside caller per each VAU message (Command 2205).

Related Features

Abbreviated Dialing

A DISA caller can use Abbreviated Dialing for Trunk to Trunk Transfer call.

DUD (Direct Universal Dialing)

Direct Universal Dialing also allows outside callers to directly access system extensions.

Trunk Outgoing Call

An outside caller can use DISA to place Trunk Line calls through the system.

Paging, External

An outside caller can announcement for External Paging from DISA.

Paging, Internal

An outside caller can announcement for Internal Paging from DISA.

Automated Attendant for the DUD / DISA

When the system answered for incoming call automatically, pre-recorded voice / guidance message can be sent to caller.

Operation

To place a DISA call into the system (from any SLT with DTMF sender) when without DISA Talkie:

1. Dial the telephone number that rings the DISA Trunk Line.
2. Wait for the DISA Trunk Line to automatically answer with a unique dial tone.
3. Dial the 6-digit DISA password (access code). (Used DTMF tone)
4. Wait for a second unique dial tone.
5. Dial the system extension number or feature access service code. (Used DTMF tone)

To place a DISA call into the system (from any SLT with DTMF sender) when with DISA Talkie:

1. Dial the telephone number that rings the DISA Trunk Line
2. Wait for the DISA Trunk Line to automatically answer with a unique dial tone
3. Dial the 6-digit DISA password (access code). (Used DTMF tone)
4. Hear guidance message from DISA Talkie. (e.x. extension numbers for each member and feature access service code.)
5. Hear second unique dial tone again.
6. Dial the system extension directly or feature access service code. (Used DTMF tone)

DISA (Direct Inward System Access) (Cont'd)

Operation (Cont'd)

To place an extension call directly:

1. Hear second unique dial tone.
2. Dial a system extension directly.

To place an Operator call directly:

1. Hear second unique dial tone.
2. Dial an Operator access code.

To place an External Group Paging:

1. Hear second unique dial tone.
2. Dial 803( ).
3. Dial the group number (1-8 or 0 for All Call)
4. Make announcement.

To place an Internal Group Paging:

1. Hear second unique dial tone.
2. Dial 801( ).
3. Dial the group number (1-9 or 01-32).
4. Make announcement.

To place a call over a Trunk Line Group:

1. Hear second unique dial tone.
2. Dial 804( ).
3. Dial line group number (1-9 or 01-32).
4. Dial telephone number.

To place a call using Trunk Line Group Routing:

1. Hear second unique dial tone.
2. Dial 9( ) [Trunk Line Group Routing Code].
3. Dial telephone number.

To dial a Common Abbreviated Dialing number:

1. Hear second unique dial tone.
2. Dial 813( ).
3. Dial Common Abbreviated Dialing storage code (000-399).

DISA (Direct Inward System Access) (Cont'd)

Operation (Cont'd)

To continued Trunk to Trunk conversation:

1. Conversation to another outside party.
2. Hear 1 sec signal tone.
3. Dial DISA Continue code within DISA conversation disconnect time.
   (Up to one digit)

To disconnect Trunk to Trunk conversation:

1. Conversation to another outside party.
2. Dial DISA conversation disconnect code.

   If DISA caller did not dial DISA conversation disconnect code, the system automatic disconnect after DISA conversation time and DISA conversation disconnect time.

DLS Console

Description

Basically, DLS Console is designed for “Direct Line Selection” purpose. However, in the software point of view, either DSS Console or DLS Console is treated as same terminal. Only difference in between is physical number of “keys”. It means that 100 keys are provided for DSS Console (except 10-functional keys), and 24 keys for DLS Console. Actually, the program commands for DSS Console are basically used for DLS Console as well. However, only the data for first-24-keys are effected for extensions or trunk lines. For example, if DLS Console is simply connected to keyphone, then key1-key24 shows the status of ext200-ext223 respectively according to command 1103 as default. In order to change the status to trunk line 1-24, “*24DLS Range Selection*” key has to be assigned on a function key at the keyphone.

<*Caution*> *In the hardware point of view, DLS Console cannot be stayed with DSS Console. It means the combination of KT+DSS+DLS is not allowed. (KT+DSS(s) or KT+DLS is allowed)*

Conditions

Only 24-key type of keyphones have connectivity of the DLS Console.

(24 Key Super Display Phone & 24 Key Executive Phone)

<*Note*> *For previous keyphone models, 16TXH, 24TXH, 24TSXH and 32TXH provide the connectivity.*

Default Setting

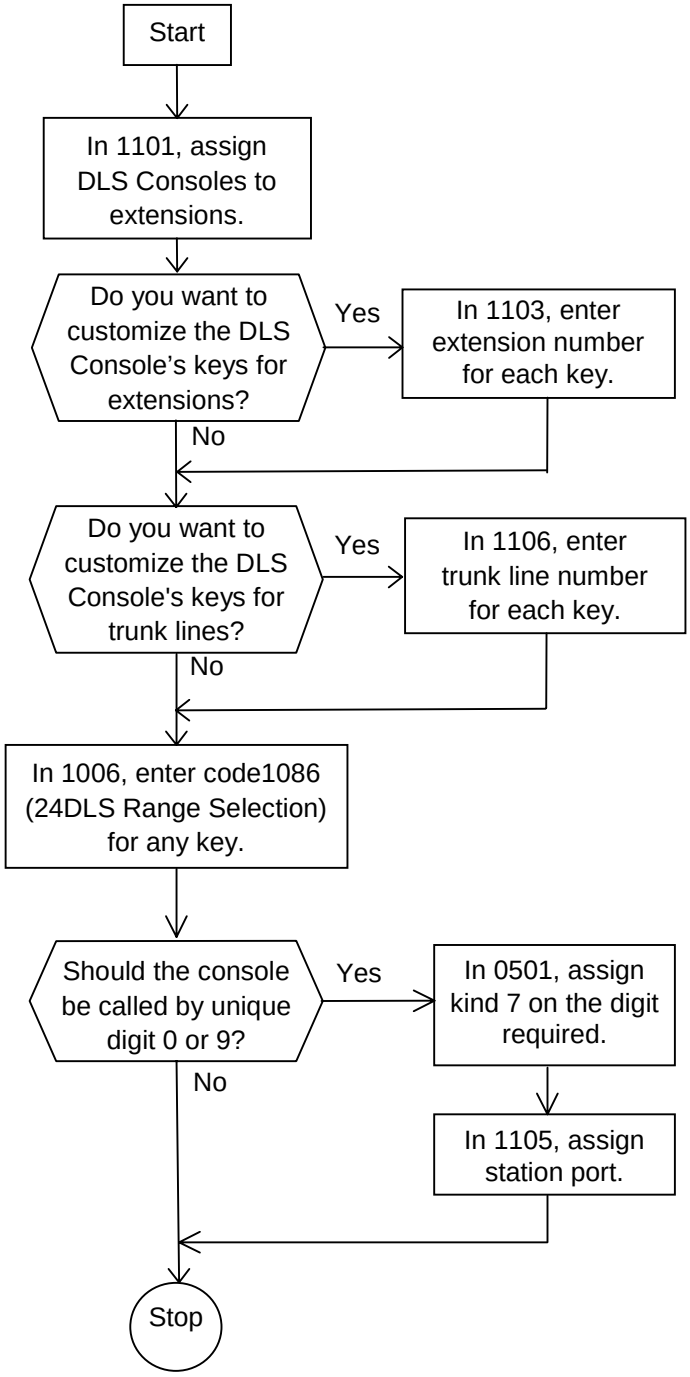
- No DLS Consoles assigned.

Options

DX2E-24DL DLS

DLS Console (Cont'd)

Programming


Start
In 1101, assign DLS Consoles to extensions.
Do you want to customize the DLS Console’s keys for extensions?
Yes
In 1103, enter extension number for each key.
No
Do you want to customize the DLS Console's keys for trunk lines?
Yes
In 1106, enter trunk line number for each key.
No
In 1006, enter code1086 (24DLS Range Selection) for any key.
Should the console be called by unique digit 0 or 9?
Yes
In 0501, assign kind 7 on the digit required.
No
In 1105, assign station port.
Stop

DLS Console (Cont'd)

Programming (Cont'd)

> 0501 – System Numbering
  Assign kind 7 on the unique digit (maybe 0 or 9) as operator usage.

> 1006 – Programming Function Keys, Code1086: 24DLS Range Selection
  Assign the function key on keyphone for DLS Console in case that 2nd page data (key101-124) are used.

> 1101 – DSS Console Extension Assignment
  Designate the DLS Console installations (i.e., the extensions that have DLS Consoles connected to them).

> 1103 – DSS Console Key Assignment
  Assign Extension number to each DLS console keys.

> 1105 – Operator's Extension
  Enter extension port number for operator's position to be called by unique digit 0/9.

> 1106 – DLS Console Key Assignments
  Assign trunk line to each DLS Console keys.

Related Features

One-Touch Dialing

Like a One-Touch Key, a user can have DLS Console keys for Direct Station Selection or Trunk Line Calling.

DSS Console

Basically, same functions are provided for one touch access to extension or trunk line, except 10 functional keys of DSS Console.

DLS Console (Cont'd)

Operation

Calling an extension from your DLS Console: (as DSS key usage)

(Confirm “24DLS Range Selection” key shows OFF.)

1. Press DLS Console key.

If the call voice-announces, you can make it ring by dialing 1( ).

Extension Busy Lamp Field

When the DSS key is...	The assigned extension is...
On	Busy on a call
Off	Idle
Flashing fast	In Do Not Disturb

Placing a Trunk line call from your DLS Console (as DLS usage):

(Confirm “24DLS Range Selection” key shows ON.)

1. Press DLS Console key assigned for Trunk Line
2. Dial outside number.

Trunk Line Busy Lamp Field

When DLS key is...	The assigned trunk line is ...
On	Busy on a call
Off	Idle
Flashing slowly	Ringing

Answering a Trunk Line call from your DLS Console (as DLS usage):

(Confirm “24DLS Range Selection” key shows ON.)

1. Press flashing DLS Console key.

Do Not Disturb

Description

Do Not disturb blocks incoming calls and Paging announcements. DND permits an extension user to work by the phone undisturbed by incoming calls and announcements.

When the user activates DND, incoming Trunk Line calls still flash the line keys. The user may use the phone in the normal manner for placing and processing calls.

There are four Do Not Disturb options available at each extension:

1 = Incoming Trunk Line calls blocked DND EXTERNAL

2 = Incoming Intercom and transferred Trunk Line calls blocked DND INTERCOM

3 = Incoming Trunk Line and Intercom calls blocked DND ALL

4 = Incoming Call Forwards blocked DND TRANSFER

0 = CANCEL

Conditions

This feature available for Key Telephone and Single Line Telephone.

Default Setting

- An extension's Class of Service allows it to use Do Not Disturb.
- Service Code of Do Not Disturb is dial 847.
- Service Code of Common Canceling Service Code is dial 720.

Options

None

Programming

> 0406 – COS Options, Item 12: Do Not Disturb
  In an extension's Class of Service, enable (1) or disturb (0) an extension's ability to use Do Not Disturb.

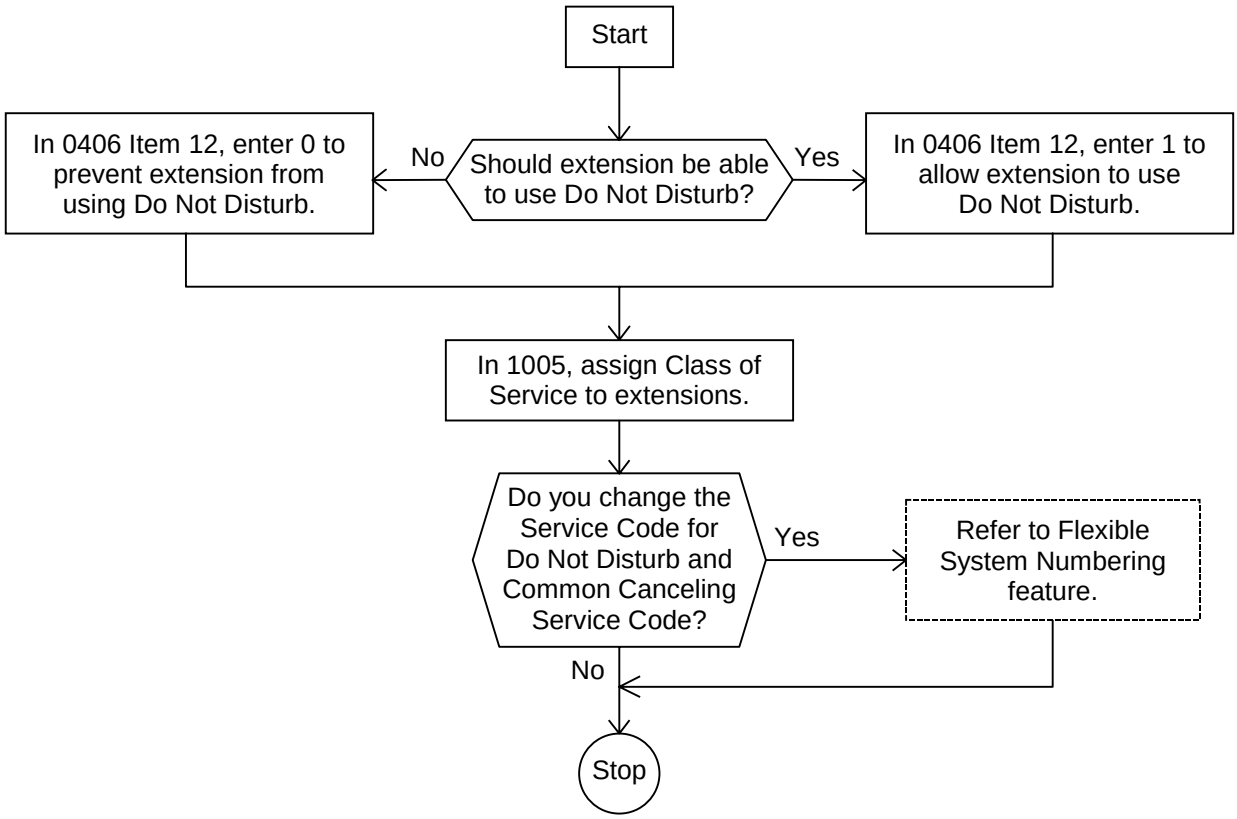
> 0511 – Service Code Setup, Part A Item 7: Do Not Disturb
  Assign a service code of Do Not Disturb.

> 0514 – Service Code Setup, Part B Item 10: Common Canceling service code
  Assign a service code of common Canceling service code is dial 720.

> 1005 – Class of Service for Extension
  Assign a Class of service (1-10) to an extension.

Do Not Disturb (Cont'd)

Programming (Cont'd)


Start
Should extension be able to use Do Not Disturb?
No
In 0406 Item 12, enter 0 to prevent extension from using Do Not Disturb.
Yes
In 0406 Item 12, enter 1 to allow extension to use Do Not Disturb.
In 1005, assign Class of Service to extensions.
Do you change the Service Code for Do Not Disturb and Common Canceling Service Code?
Yes
Refer to Flexible System Numbering feature.
No
Stop

Do Not Disturb (Cont'd)

Related Features

Call Forward

If an extension user activates DND option 4, the system prevents other extensions from forwarding calls to them. If an extension already receiving forwarded calls activates DND option 4, callers to the forwarded extension hear DND tone.

Call Forward/Do Not Disturb Override

An extension user can override Call Forward or Do Not Disturb (Bypass Call) at another extension.

Operation

<Key Telephone>

To activate or deactivate Do Not Disturb at your extension:

1. Do not lift the handset.
2. Press DND key.

   OR

   Press idle CL key and dial 847( ).
3. Dial the DND option code

   0 = Cancel DND

   1 = Incoming Trunk Line calls blocked

   2 = Incoming Intercom and transferred Trunk Line calls blocked

   3 = Incoming Trunk Line and Intercom calls blocked

   4 = Transferred calls blocked

   (Confirmation tone is heard.)

To cancel Do Not Disturb:

1. Press idle CL key.
2. Dial 720( ). (Common Canceling Service Code)
3. Press SPK to hang up.

When you cancel an alarm dock by dial 720, these features are canceled at same time: DND, Call Forward, Repeat Dial, Message Waiting, Head-set Mode and Text Message.

Do Not Disturb (Cont'd)

Operation (Cont'd)

<Single Line Telephone>

To activate or deactivate Do Not Disturb at your extension:

1. Do not lift the handset.
2. Off hook and dial 847 ( ).
3. Dial the DND option code
   0 = Cancel DND
   1 = Incoming Trunk Line calls blocked
   2 = Incoming Intercom and transferred Trunk Line calls blocked
   3 = Incoming Trunk Line and Intercom calls blocked
   4 = Transferred calls blocked

   (Confirmation tone is heard.)

To cancel Do Not Disturb:

1. Off hook.
2. Dial 720( ). (Common Canceling Service Code)
3. On hook.

   When you cancel of alarm clock by dial 720, these features are canceled at same time, DND, Call Forward, Repeat Dial, Message Waiting, Head-set Mode and Text Message.

Do Not Disturb/Call Forward Override

Description

An extension user can override Do Not Disturb or Call Forward at another extension.

This is helpful, for example, to dispatchers and office managers that always need to get through.

Conditions

This feature available for key telephone and single line telephone.

Default Setting

- An extension's Class of Service allows initiating Do Not Disturb/Call Forward Override.
- Service Code of Do Not Disturb Override/Call Forward is dial 807.
- One Digit Service Code of Bypass Call (DND/FWD Override) is no setting.

Options

None

Programming

> 0406 – COS Options, Item 4: DND Override/Call Forward (Bypass Call)
  In an extension's Class of Service, enable (1) or disable (0) the initiate Call Forward/DND Override.

> 0511 – Service Code Setup, Part A
  Assign a service code for Bypass call (Item 2: dial 807)

> 0512 – One Digit Service Code Setup, Part A Item 6: Bypass Call
  Assign a One Digit Service Code for Bypass call (DND/FWD override).

> 1005 – Class of Service for Extension
  Assign a Class of Service (1-10) to an extension.

> 1006 – Programming Function Keys
  Assign a function key for Do Not Disturb/Call Forward Override (code 1022).

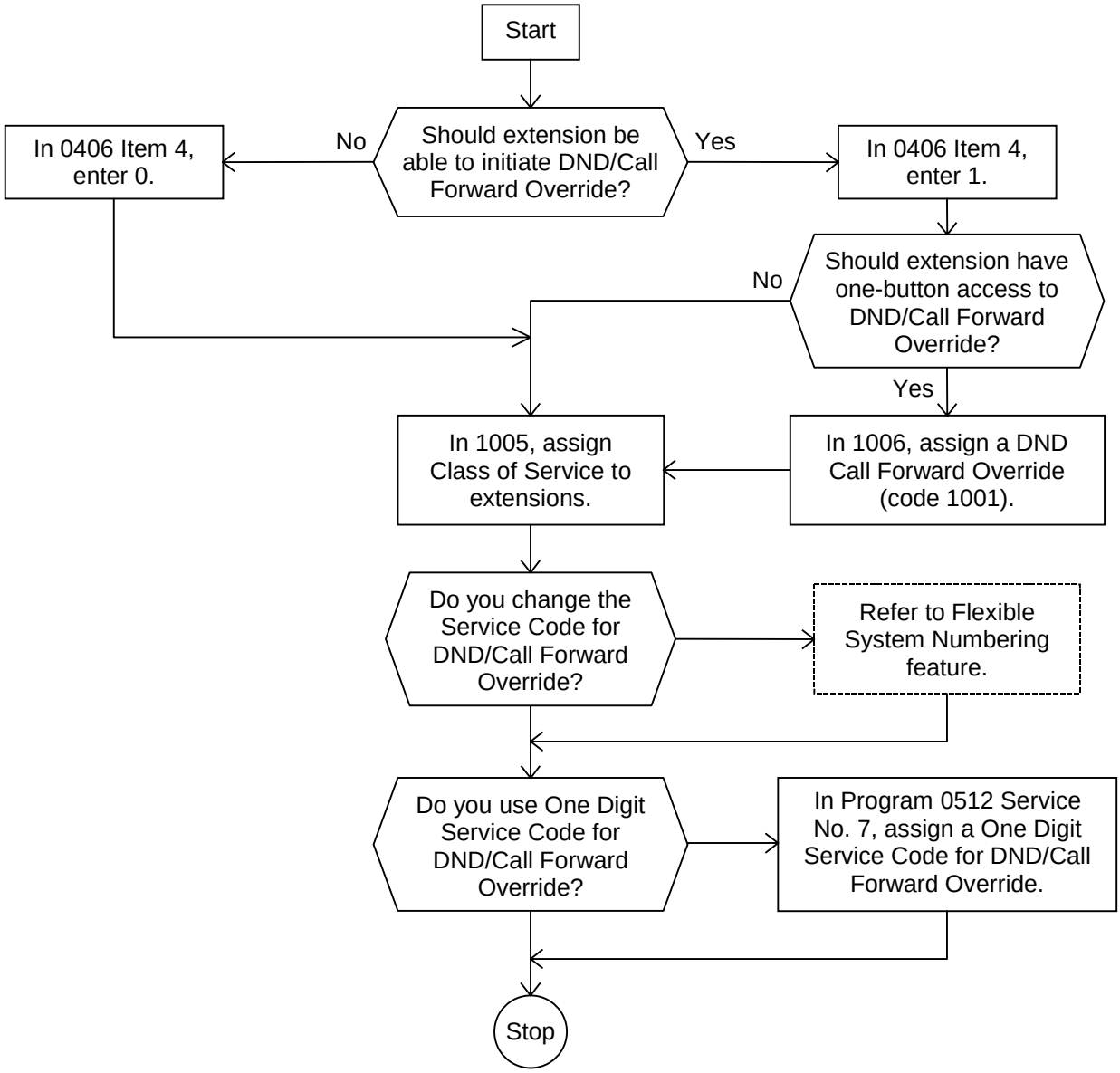
Related Features

Programmable Function Keys

Function Keys simplify DND/FWD Override option.

Do Not Disturb/Call Forward Override (Cont'd)

Programming (Cont'd)


Start
Should extension be able to initiate DND/Call Forward Override?
No
In 0406 Item 4, enter 0.
Yes
In 0406 Item 4, enter 1.
Should extension have one-button access to DND/Call Forward Override?
No
Yes
In 1005, assign Class of Service to extensions.
In 1006, assign a DND Call Forward Override (code 1001).
Do you change the Service Code for DND/Call Forward Override?
Refer to Flexible System Numbering feature.
Do you use One Digit Service Code for DND/Call Forward Override?
In Program 0512 Service No. 7, assign a One Digit Service Code for DND/Call Forward Override.
Stop

Do Not Disturb/ Call Forward Override (Cont'd)

Operation

<Key Telephone>

To override an extension's Do Not Disturb or Call Forward :

1. DND extension or Call the forwarding.
2. Press Override key (PGM 1006 or SC 1022).
   OR
   Dial 807( ).
   OR
   One Digit Service Code ( ).

<Single Line Telephone>

To override an extension's Do Not Disturb or Call Forward :

1. DND extension or Call the forwarding.
2. Dial 807( ).
   OR
   One Digit Service Code ( ).

Door Lock Control

Description

A customer provided Door lock device can be installed with one of the Doorphone boxes

You can connect each circuit's control relay to an electric door strike. So that the extension user to remotely activate the door strike while taking to a visitor at the doorphone.

The control relays are normally open. .

Conditions

Door lock control requires a customer provided Electric door lock device connected to the PGDU card. Refer to the System Hardware Manual.

Default Setting

Duration time for Door lock open is 10 seconds.

Option

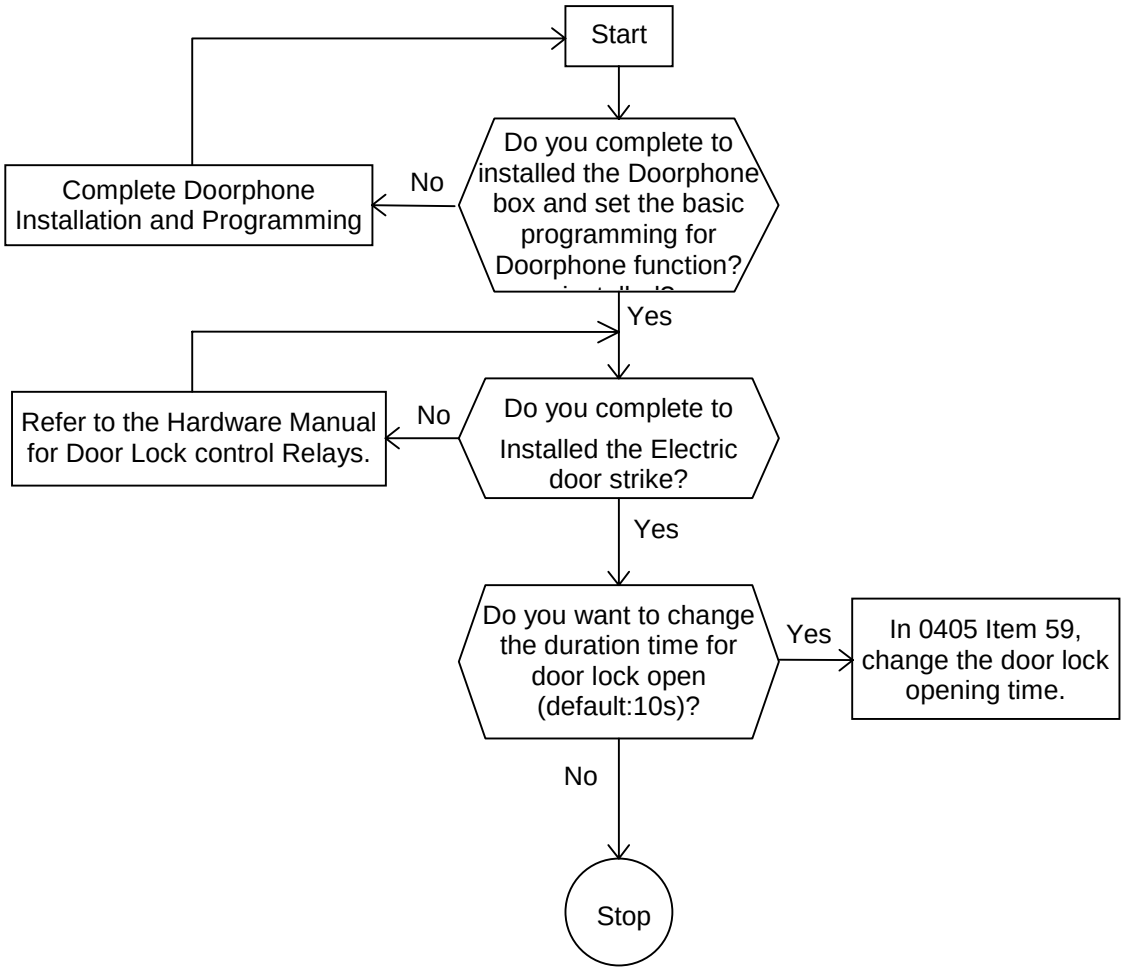
DX2E-4PGDU-S1 and NT-S-D6 Doorphone

Programming

> 0405 – System Timers, Item 59: Door lock control time
> Set the duration time for door lock open.

Door Lock Control (Cont’d)

Programming (Cont'd)


Start
Do you complete to installed the Doorphone box and set the basic programming for Doorphone function?
No
Complete Doorphone Installation and Programming
Yes
Do you complete to Installed the Electric door strike?
No
Refer to the Hardware Manual for Door Lock control Relays.
Yes
Do you want to change the duration time for door lock open (default:10s)?
Yes
In 0405 Item 59, change the door lock opening time.
No
Stop

Operation

<Key Telephone>

To activate the Doorphone strike:

1. While talking to the Doorphone, press the Flash key.

<Single Line Telephone>

To activate the Doorphone strike:

1. While talking to the Doorphone, Hook/Flash.

Doorphone

Description

The Doorphone is a self-contained Intercom unit typically used for an entrance door. A visitor at the door can press the Doorphone call button (like a door bell). The Doorphone then sends chime tones to all extensions programmed to receive chimes. To answer the chime, the called extension user just lifts the handset. This lets the extension user talk to the visitor at the Doorphone. The Doorphone is convenient to have at a delivery entrance; they just answer the Doorphone chimes instead.

The system can have up to eight Doorphones.

- **Door Lock Control**

  When you have an electric door lock, you can open an electric door lock from talking key telephone.

Conditions

(A) For each Doorphone port, slide the selector switch on the PGDU card to the DH position. Refer to the system hardware manual for additional details.

Default Setting

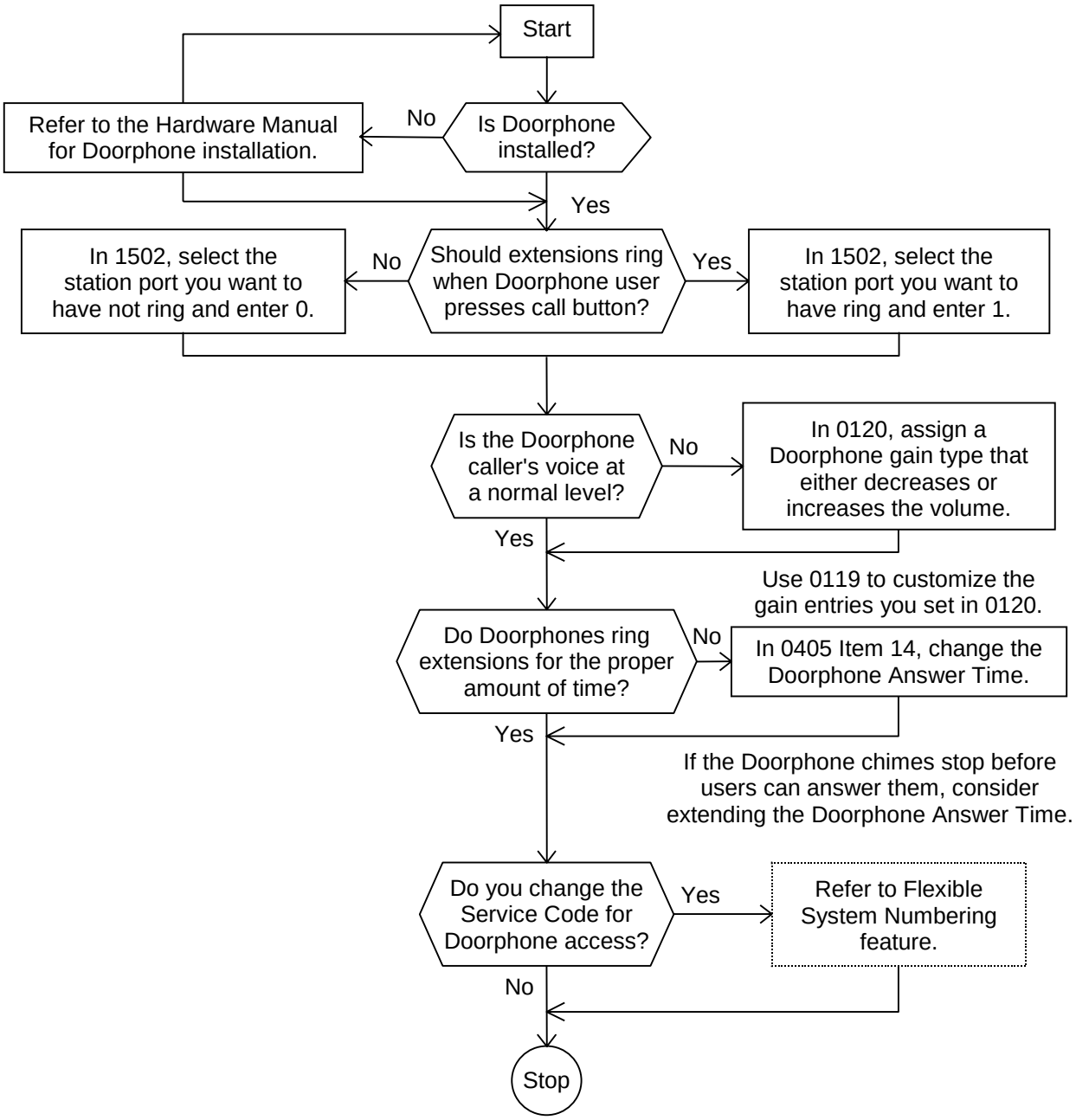
- All Doorphone ports use gain type 0 (0 dB gain).
- A user must answer the Doorphone chimes within 30 seconds.
- All Doorphones don't ring extensions.
- The system assigns Doorphone Chime patterns as follows:
- Service Code of Doorphone access is dial 802.

Options

DX2E-4PGDU-S1 and NT-S-D6 Doorphone

Doorphone (Cont'd)

Programming


Start
Is Doorphone installed?
No
Refer to the Hardware Manual for Doorphone installation.
Yes
Should extensions ring when Doorphone user presses call button?
No
In 1502, select the station port you want to have not ring and enter 0.
Yes
In 1502, select the station port you want to have ring and enter 1.
Is the Doorphone caller's voice at a normal level?
No
In 0120, assign a Doorphone gain type that either decreases or increases the volume.
Yes
Use 0119 to customize the gain entries you set in 0120.
Do Doorphones ring extensions for the proper amount of time?
No
In 0405 Item 14, change the Doorphone Answer Time.
Yes
If the Doorphone chimes stop before users can answer them, consider extending the Doorphone Answer Time.
Do you change the Service Code for Doorphone access?
Yes
Refer to Flexible System Numbering feature.
No
Stop

Doorphone (Cont'd)

Programming (Cont'd)

> 0119 – External Page and Doorphone CODEC Gain Type
Set the five CODEC gain types for External Page and Doorphone Box ports.

> 0120 – External Page and Doorphone CODEC Gain Type
Assign a CODEC gain type to the External Page and Doorphone Box ports.

> 0405 – System Timers, Item 14: Doorphone Answer Time
Set the interval within which a user must answer the Doorphone Box chimes.

> 0511 – Service Code Setup, Part A Item 18: Doorphone access
Assign a service code of Doorphone access.

> 1502 – Doorphone Ring Assignment
Determine which Doorphone Boxes should ring which extensions.

Related Features

Paging, External

If a PGDU card has a Doorphone connected, you cannot use that port for External Paging.

Doorphone (Cont'd)

Operation

<Key Telephone>

To call a Doorphone:

1. Press idle CL key.
2. Dial 802( ).
3. Dial Doorphone Number (1-8).

To answer a Doorphone chime:

1. Lift handset.

<Single Line Telephone>

To call a Doorphone:

1. Off hook.
2. Dial 802( ).
3. Dial Doorphone Number (1-8).

To answer a Doorphone chime:

1. Lift handset.

DSS Console

Description

The DSS Console gives an extension user a Busy Lamp Field (BLF) and one-button access to extensions or Trunk Line. This saves time for users that do a lot of call processing (e.g., operators or dispatchers).

The DSS Console simplifies:

- Calling extensions and Doorphones
- Placing answering and transferring outside calls
- Making an External or Internal Page
- Switching the Night Service mode
- Activating DSS Console Alternate Answer (Call Pick Up)

The system allows up to four extensions to have DSS Consoles. Each of the four extensions can have two consoles daisy chained together for a system total of 8. If an extension has two DSS Consoles, the 2nd console requires a separate power supply.

When one DSS Console is connected to a keyphone, the appearance with EXT.1 key shows for DSS key, and EXT.2 key appearance is for DLS key usage.

In case of two DSS Consoles are connected to a keyphone, the 1st Console shows DSS key appearance (regardless EXT.1 or EXT.2 key), and 2nd Console shows DLS key appearance.

Conditions

Only 24-key type of keyphones have connectivity of the DSS console.

(24 Key Super Display Phone & 24 Key Executive Phone)

<*Note*> *For previous keyphone models, 16TXH, 24TXH, 24TSXH and 32TXH provide the connectivity.*

Default Setting

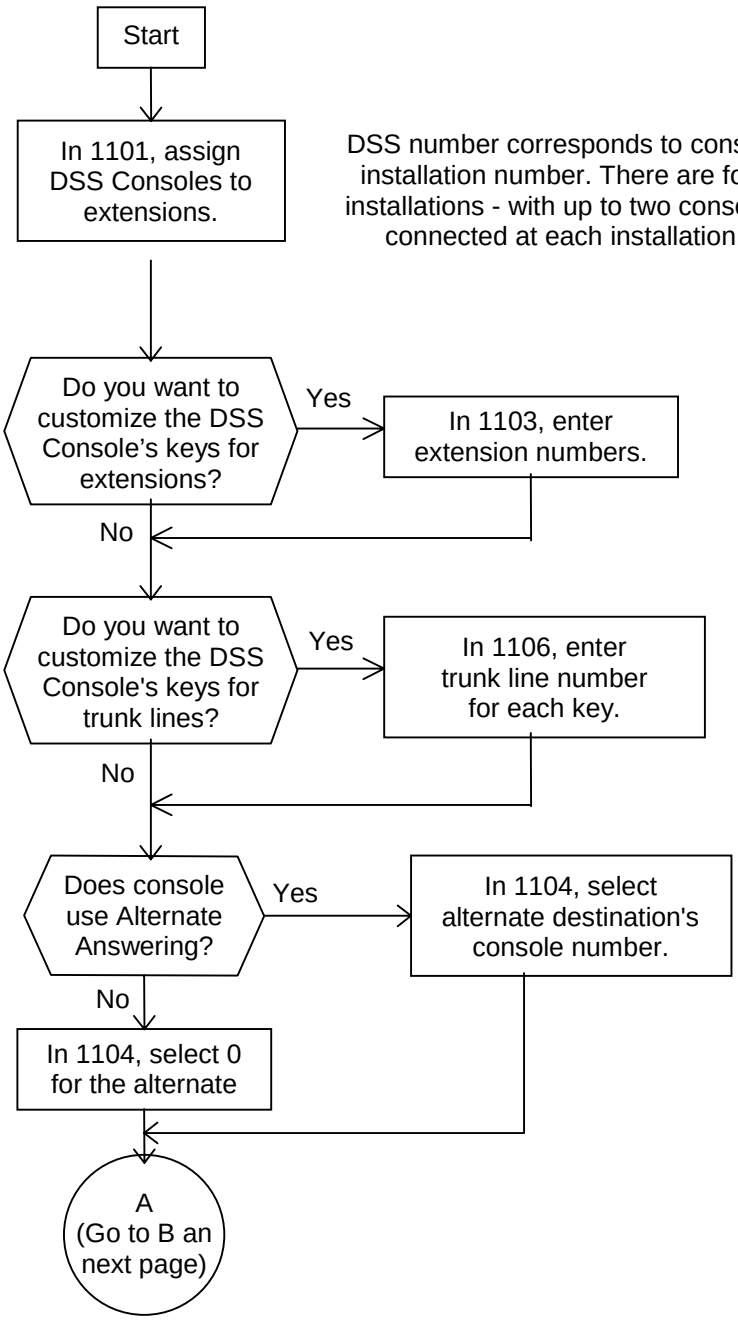
- An extension's Class of Service allows DSS Console Alternate Answer.
- No DSS Consoles assigned.
- All console key ranges are 1 (extension ports 1-200).
- Console cannot change Night Service mode.
- The system has 8 External Paging zones. Each zone requires customer-provided equipment.
- The system has no Internal Paging zones programmed.
- No Doorphone installed.

Options

DX2E-110D DSS

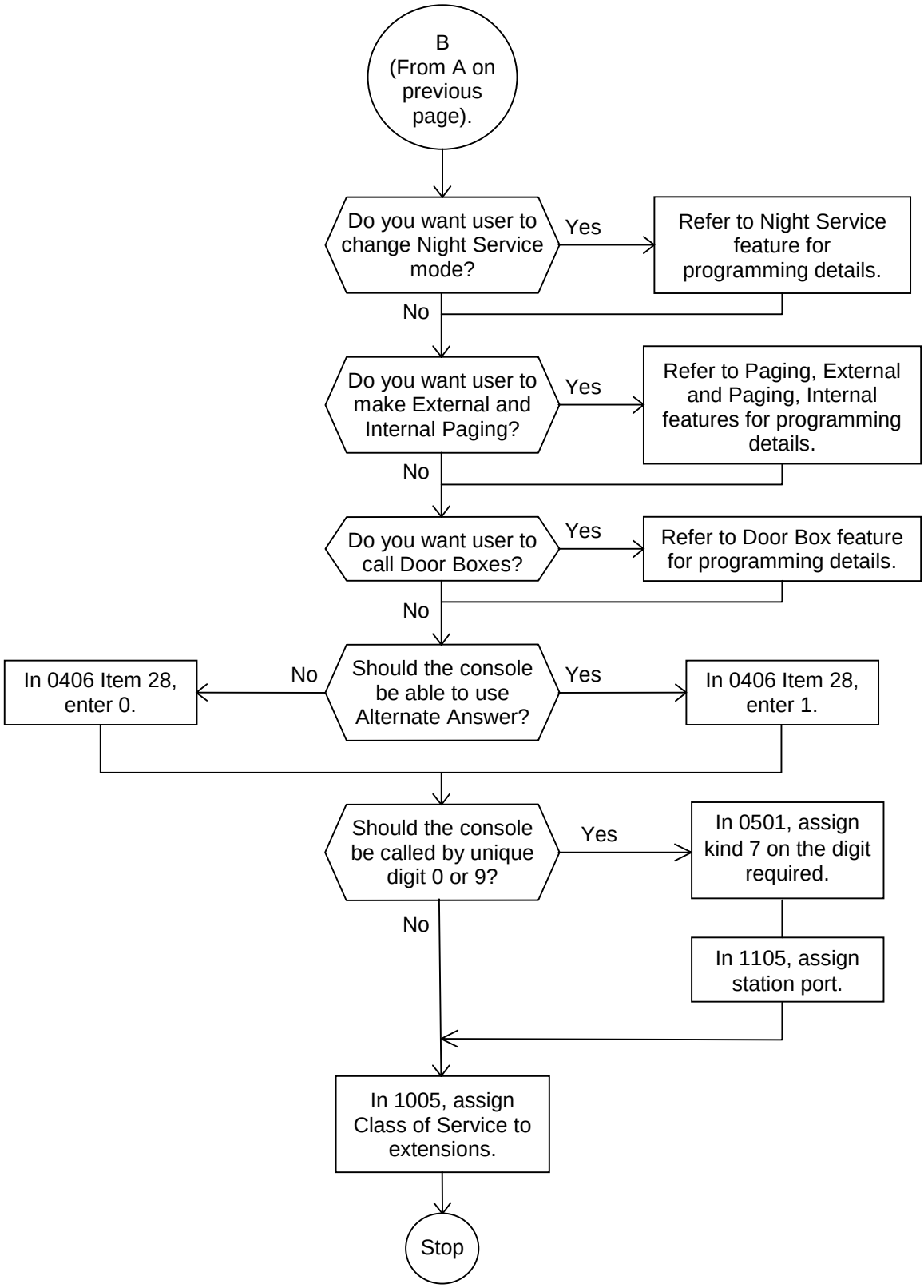
DSS Console (Cont'd)

Programming


Start
In 1101, assign DSS Consoles to extensions.
DSS number corresponds to console installation number. There are four installations - with up to two consoles connected at each installation.
Do you want to customize the DSS Console's keys for extensions?
Yes
In 1103, enter extension numbers.
No
Do you want to customize the DSS Console's keys for trunk lines?
Yes
In 1106, enter trunk line number for each key.
No
Does console use Alternate Answering?
Yes
In 1104, select alternate destination's console number.
No
In 1104, select 0 for the alternate
A
(Go to B an next page)

DSS Console (Cont'd)

Programming (Cont'd)


B
(From A on previous page).
Do you want user to change Night Service mode?
Yes
Refer to Night Service feature for programming details.
No
Do you want user to make External and Internal Paging?
Yes
Refer to Paging, External and Paging, Internal features for programming details.
No
Do you want user to call Door Boxes?
Yes
Refer to Door Box feature for programming details.
No
Should the console be able to use Alternate Answer?
No
In 0406 Item 28, enter 0.
Yes
In 0406 Item 28, enter 1.
Should the console be called by unique digit 0 or 9?
Yes
In 0501, assign kind 7 on the digit required.
No
In 1105, assign station port.
In 1005, assign Class of Service to extensions.
Stop

DSS Console (Cont'd)

Programming (Cont'd)

> 0406 – COS Options, Item 28: Off-duty at setting for DSS console
  In an extension's Class of Service, enable (1) or disable (0) the extension's ability to use DSS Console Alternate Answer.
> 0501 – System Numbering
  Assign kind 6 on the unique digit (maybe 0 or 9) as operator usage.
> 1005 – Class of Service for Extension
  Assign Class of Service (1-10) to extensions.
> 1101 – DSS Console Extension Assignment
  Designate the DSS Console installations (i.e., the extensions that have DSS Consoles connected to them).
> 1103 – DSS Console Key Assignment
  Assign an Extension number to each DSS key.
> 1104 – DSS Console Alternate Answering
  If the console should have Alternate Answering, use this program to assign the Alternate Answering Destination.
> 1106 – DLS Console Key Assignments
  Assign trunk line to each DSS keys.

Related Features

Doorphone

The DSS Console provides one-touch calling and a Busy Lamp Field for Doorphones. Refer to the Doorphone Box Feature when programming Doorphones.

Trunk Line Calls, Answering and Outgoing

A DSS Console can have line keys for placing and answering calls.

Night Service

The DSS Console provides one-touch Night Service switching. Refer to the Night Service feature when programming Night Service options.

One-Touch Calling

Like a One-Touch Key, a user can have DSS Console keys for Direct Station Selection, Trunk Line Calling and Service code access.

Paging, External and Internal

The DSS Console provides one-touch External and Infernal Page zone access. Refer the External Paging and Internal Paging features when programming Paging.

DSS Console (Cont'd)

Operation

Calling an extension from your DSS Console:

1. Press EXT.1 to select DSS appearance.
   (in case of two DSS Consoles are connected, then use 1st Console for extension access)
2. Press DSS Console key for extension.

If the call voice-announces, you can make it ring by dialing 1( ).

Extension Busy Lamp Field

When the DSS key is...	The assigned extension is...
On	Busy on a call
Off	Idle
Flashing fast	In Do Not Disturb

Placing a Trunk Line call from your DSS Console (as DLS usage):

1. Press EXT.2 to select DLS appearance.
   (in case of two DSS Consoles are connected, then use 2nd Console for trunk access)
2. Press DSS Console key for Trunk Line
3. Dial outside number.

Trunk Line Busy Lamp Field

When DSS key is...	The assigned trunk line is ...
On	Busy on a call
Off	Idle
Flashing slowly	Ringing

Answering a Trunk Line call from your DSS Console (as DLS usage):

1. Press flashing DSS Console key assigned to Trunk Line.

Calling a Doorphone from your DSS Console (as DLS usage):

1. Press DOOR.
2. Press DSS Console key for Doorphone you want to call (1-8).

Doorphone Busy Lamp Field

When the DSS key is...	The assigned Doorphone is...
On	Busy or ringing in
Off	Idle

DSS Console (Cont'd)

Operation (Cont'd)

Transferring a call using your DSS Console:

1. Place or answer call.
   If you are on an Intercom call, press HOLD before going to the next step.
2. Press DSS key for extension that will receive transfer.
   You cannot Transfer to an extension that is busy or in Do Not Disturb.
3. (Optional) Announce call.
   If called party doesn't want the call, press flashing line key to retrieve it.
4. Press SPK to hang up.

Making Extension Page using your DSS Console:

1. Press PAGE.
2. Press DSS Console Extension Page zone key (1-8).
   If the zone you want is busy, try again later.

External Page Busy Lamp Field

When the DSS key is...	The External Page zone is ...
On	Busy
Off	Idle

Making an Internal Page using your DSS Console:

1. Press GROUP.
2. Press DSS Console Internal Page zone key (Department Group key (1 -32)).
   If the zone you want is busy, try again later.

Internal Page Busy Lamp Field

When the DSS key is,..	The Internal Page zone is...
On	Busy
Off	Idle

DSS Console (Cont'd)

Operation (Cont'd)

Switching the Night Service mode from your DSS Console:

1. Press Night Service key (NIGHT, DAY, BREAK or NITE 2).

Night Service Busy Lamp Field

When this key is ON ...	The system is in the ...
NIGHT	Night Mode
DAY	Day Mode
BREAK	Rest Mode
NITE2	Midnight Mode

Activating DSS Console Alternate Answer:

1. Press ALT.

   You hear a short confirmation tone.

   If you hear a long tone, you cannot activate Alternate Answer.

   In this case, another user has already activated your console as his/her Alternate Answer destination.

Alternate Answer Busy Lamp Field

When the ALT key is ...	Alternate Answer is ...
On	Enabled
Off	Disabled

Dual Line Appearance

Description

Each keyset has two line appearance keys (CL1 and CL2) for placing and answering calls. These line appearance keys, assigned to the extension's number, simplify operations for busy users. For example, the user can easily process a new call on one appearance with a call in progress on the other.

Conditions

This feature available for Key Telephone. (Without LC2 type key telephones)

Default Setting

All keysets have Dual Line Appearance

Options

None

Programming

None

Related Features

Override

Override call rings an extension's second line appearance when the first appearance is busy.

Operation

None

DUD (Direct Universal Dialing)

Description

DUD permits outside callers to directly dial system extensions. This helps outside callers that know the extension numbers of the people they want to reach. For example, a salesperson can call their in-house assistant directly-without going through a company operator. To use DUD, the outside caller:

- Dials the telephone number that rings the DUD Trunk Line
- Waits for the DUD Trunk Line to automatically answer with a unique dial tone
- Dials the system extension directly

- **DUD/DISA Talkie**

  This system can be automatic announce to DUD caller from DUD/DISA Talkie. DUD/DISA Talkie can be assigned 3 port ACI or SLT port. Audio system (ex. Tape recorder) connected to 3 port ACI. Automatic answer system (ex. Automatic answering telephone) connected to SLT port.

  DUD/DISA Talkie announce extension number to DUD caller practical use.

  To use DUD with DUD/DISA Talkie, the outside caller:

  - Dials the telephone number that rings the DUD Trunk line.
  - Hears guidance message from DUD/DISA Talkie, (ex. extension numbers for each number and feature access service code).
  - Hears unique dial tone again.
  - Dials the system extension directly or feature access service code.

- **Answering Extension Call for DUD**

  DUD calls ring system extensions like other outside calls. If an extension has a line key for the DUD Trunk Line, the call rings that key. If the extension does not have a line key, the call rings an idle CL key.

- **Answering Extension Call for DUD**

  DUD calls ring system extensions like other outside calls. If an extension has a line key for the DUD Trunk Line, the call rings that key. If the extension does not have a line key, the call rings an idle CL key.

- **Automatic Transfer to Incoming Ring Group conditionally**

  If DUD call is not completed due to dial tone time-over, busy/no-answer or wrong number, the system automatically shall transfer it to incoming ring group as programmed.

DUD (Direct Universal Dialing) (Cont'd)

Description (Cont'd)

- **Night Service for Trunk Line Type**

  You can set DUD operation differently for each Night Service mode. For example, a Trunk line can be a normal Trunk Line during the day and a DUD Trunk Line at night. You can also set the routing for DUD Trunk Line when the caller dials a busy or unanswered extension, dials incorrectly or forgets to dial.

- **Delayed DUD**

  For the incoming call, user can answer it as usual within pre-programmed period. However, if the call is not answered (due to busy at Operator, etc...) within pre-programmed period, the system automatically goes to answer it. And outside party shall hear voice-message / music / dial-tone according to the following conditions :-

  - If VAU adaptor is connected...: The system sends pre-recorded message from VAU.
  - If DISA Talkie(s) is / are connected... : The system sends message / music from the Talkie(s).
  - If no equipment is connected for announcement...: The system sends the unique dial tone to outside caller.

  Note : DISA Talkie shall be provided by customer.

  In other words, this feature means that the Normal Incoming Call mode will be changed to the DUD mode after the pre-programmed period has been passed.

- **1 Digit Access on DUD / DISA (VAU)**

  Any extensions can be defined as 1 digit which to be dialed from outside caller on DUD / DISA with VAU Adaptor. The outside caller is able to access to the desired extension / department group by dialing only 1 digit after the system automatically answered.

  Note: If same number is used for 1st digit of extension number and 1digit access code on DUD/DISA, out side caller can not access directly to the extension.

  Example, if 1 digit access code "2" is assigned to department group "300", outside caller can not access to extension 200 to 299 directly.
  Because outside caller tries to dial extension 200, however after dialing "2", it goes to department "300" immediately by 1 digit access function.

Conditions

The DUD caller must use a DTMF telephone.

This feature available for outside caller.

DUD (Direct Universal Dialing) (Cont'd)

Default Setting

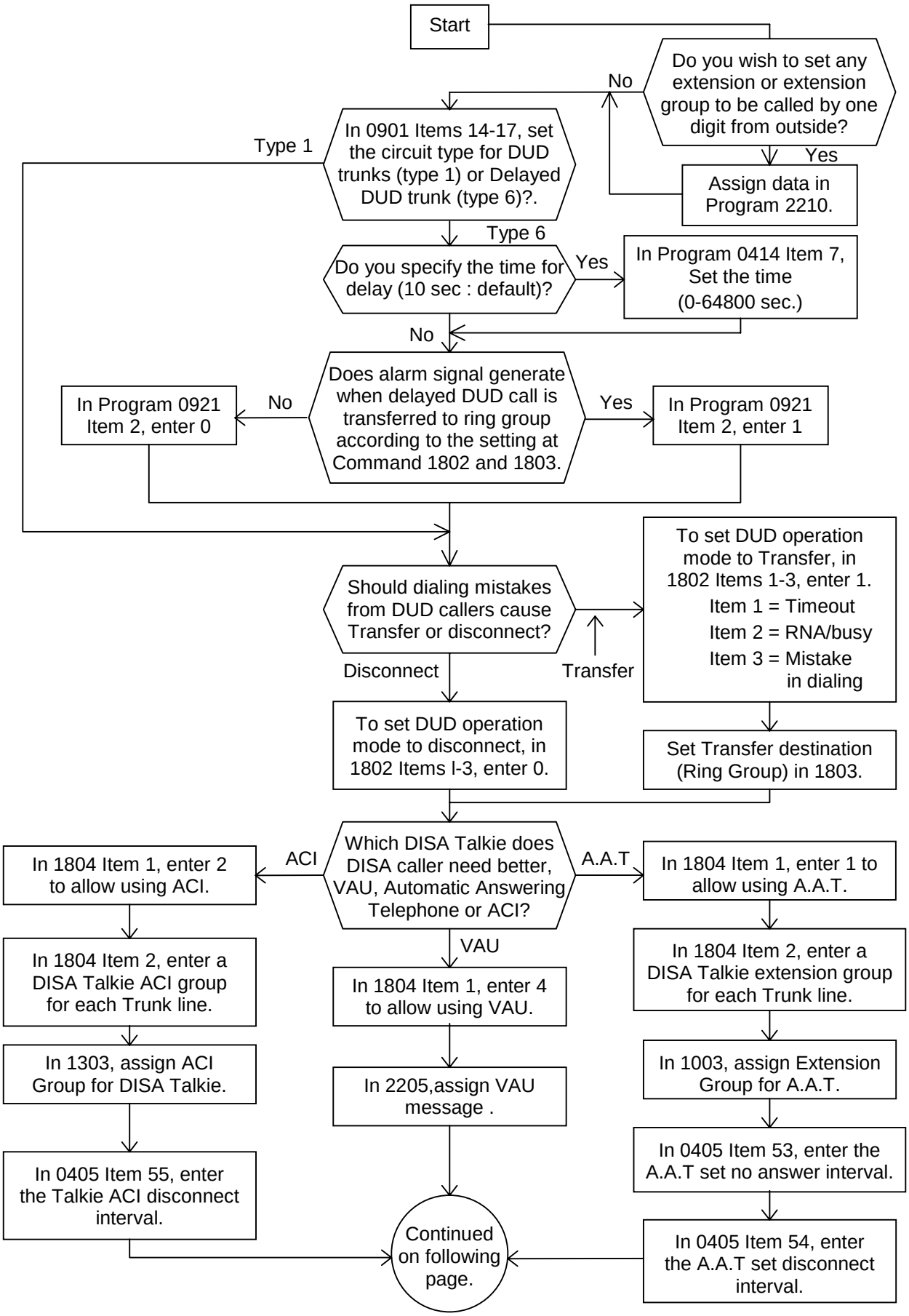
- No DTDU blocks reserved for analog Trunk line DTMF reception.
- The DTMF Receiver Active Time is 10 seconds.
- The DUD/DISA Dial Tone Time is 10 seconds.
-The DUD/DISA No Answer Time is 10 seconds.
- DUD/DISA will disconnect for timeout, busy and if the user makes a mistake in dialing.
- All service types of trunk lines are assigned as normal.
- Delayed DUD Timer is set to 10 seconds.

Options

DX2E-4DTDU-S1 (if VAU adaptor is **not** installed)
DX2E-4ASTU-S1 (for DISA Talkie, such as Answering Machine)
DX2E-3ACI-A(for DISA Talkie, such as CD player)
DX2E-VAU-A
DX2E-VAU-B1 (to be used to expand the talk path)

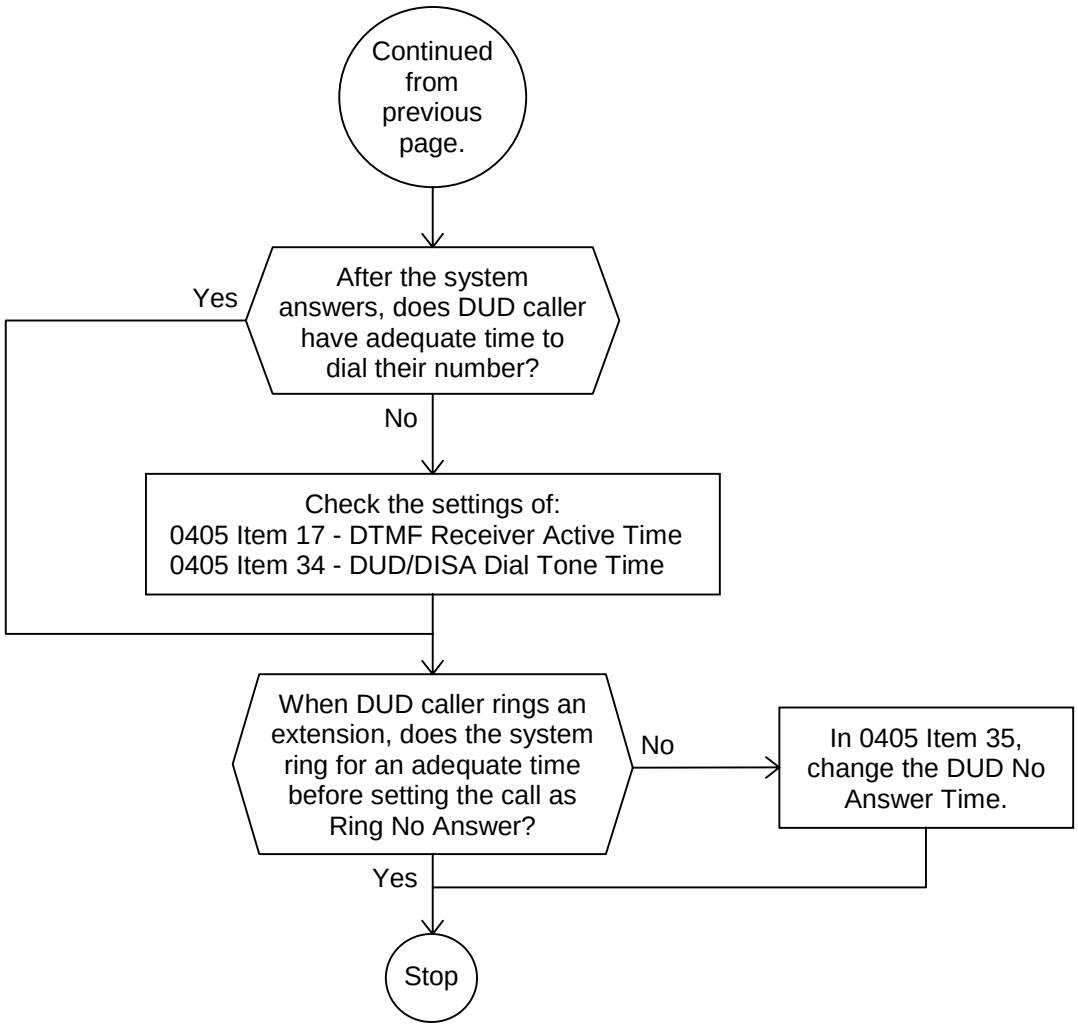
DUD (Direct Universal Dialing) (Cont'd)

Programming


Start
Do you wish to set any extension or extension group to be called by one digit from outside?
No
Yes
Assign data in Program 2210.
In 0901 Items 14-17, set the circuit type for DUD trunks (type 1) or Delayed DUD trunk (type 6)?.
Type 1
Type 6
Do you specify the time for delay (10 sec : default)?
Yes
In Program 0414 Item 7, Set the time (0-64800 sec.)
No
Does alarm signal generate when delayed DUD call is transferred to ring group according to the setting at Command 1802 and 1803.
No
In Program 0921 Item 2, enter 0
Yes
In Program 0921 Item 2, enter 1
Should dialing mistakes from DUD callers cause Transfer or disconnect?
Disconnect
Transfer
To set DUD operation mode to Transfer, in 1802 Items 1-3, enter 1.
Item 1 = Timeout
Item 2 = RNA/busy
Item 3 = Mistake in dialing
To set DUD operation mode to disconnect, in 1802 Items l-3, enter 0.
Set Transfer destination (Ring Group) in 1803.
Which DISA Talkie does DISA caller need better, VAU, Automatic Answering Telephone or ACI?
ACI
A.A.T
VAU
In 1804 Item 1, enter 2 to allow using ACI.
In 1804 Item 2, enter a DISA Talkie ACI group for each Trunk line.
In 1303, assign ACI Group for DISA Talkie.
In 0405 Item 55, enter the Talkie ACI disconnect interval.
In 1804 Item 1, enter 4 to allow using VAU.
In 2205,assign VAU message .
In 1804 Item 1, enter 1 to allow using A.A.T.
In 1804 Item 2, enter a DISA Talkie extension group for each Trunk line.
In 1003, assign Extension Group for A.A.T.
In 0405 Item 53, enter the A.A.T set no answer interval.
In 0405 Item 54, enter the A.A.T set disconnect interval.
Continued on following page.

DUD (Direct Universal Dialing) (Cont'd)

Programming (Cont'd)


Continued from previous page.
After the system answers, does DUD caller have adequate time to dial their number?
Yes
No
Check the settings of:
0405 Item 17 - DTMF Receiver Active Time
0405 Item 34 - DUD/DISA Dial Tone Time
When DUD caller rings an extension, does the system ring for an adequate time before setting the call as Ring No Answer?
No
In 0405 Item 35, change the DUD No Answer Time.
Yes
Stop

DUD (Direct Universal Dialing) (Cont'd)

Programming (Cont'd)

> 0405 – System Timers, Part A, Item 34: DUD, DISA Dial Tone
After answering the DUD trunk, the system waits this interval (0-64800 seconds) for the caller to dial the first digit of extension number.
If the caller fails to dial within this interval, the system drops the call.

> 0405 – System Timers, Part A, Item 35: DUD, DISA Answer
A DUD caller can ring an extension for this interval (0-64800 seconds) before the system sets the call as a Ring No Answer. After this interval expires, the call follows the programmed Ring No Answer routing (see Program 1802 below).

> 0405 – System Timers, Part A, Item 53: Automatic answering telephone set no answer
Set the answering waiting time of automatic answering extension, when incoming DUD Trunk line (0-64800 seconds).

> 0405 – System Timers, Part A, Item 54: Automatic answering telephone set disconnect
Set the announcement time of automatic answering extension, when incoming DUD Trunk line (0-64800 seconds).

> 0405 – System Timers, Part A, Item 55: Talkie ACI disconnect
Set the announcement time of Talkie ACI, when incoming DUD Trunk line (0-64800 seconds).

> 0405 – System Timers, Part A, Item 79: DUD/DISA answer delay timer
Setup the interval time, from the system receive the DUD/DISA incoming Call until the system automatically answer.

> 0405 – System Timers, Part A, Item 80: DUD/DISA Group Hunt no answer time
Setup the calling time for department groups pilot number.

> 0414 – System Timers, part B, Item 3: DUD/DISA busy tome timer
Setup the busy tone sending time when outside caller dial the busy extension.

> 0414 – System Timers, part B, Item 7: Delayed DUD answer timer
Assign the delay time from normal incoming status to DUD mode. If this time is set to “0 sec”, this call will switch to DUD mode immediately.

> 0901 – Basic Trunk Line Port Setup, Part A Item 14-17: Service Type
For DISA operation, set the Trunk Line service type to 02. You can have a different service type for each Night Service mode.
Type “6” defines the Delayed DUD on trunk line for Day / Night / Mid Night / Rest mode.

> 0921 – Basic Trunk Line Port Setup, Part B Item 2: DUD,DISA transfer alarm
When DUD / DISA call is transferred to ring group according to the setting at Command 1802 and 1803, alarm signal shall be generated if the data is set to “1”.

> 1802 – DUD, DISA Operation Made Setup
Set the operating mode of each DUD Trunk line. This sets what happens to the call when the DUD caller calls a busy or unanswered extension. The call can either disconnect (0) or Transfer to an alternate destination (1). Set the alternate destination in program 1802.

DUD (Direct Universal Dialing) (Cont'd)

Programming (Cont'd)

> 1803 – DUD, DISA Transfer Ring Group Setup

If you set a DISA Trunk Line operating mode at 1, use this program to assign the ring group that is the transfer destination. You make a different entry for each Night Service mode.

> 1804 – DUD, DISA Talkie

If you want to automate announcement to DUD caller when incoming DUD call, use this program to assign connected port of the automated announcement extension (ACI or SLT type). (e.x. Automatic answering telephone)

> 2205 – Automated Attendant Message assignment

Assign the VAU message number which is used Automated Attendant Message for DUD caller from VAU.

> 2210 – VAU 1 Digit Code

Assign extension / department group to be called by 1 digit (1 to 0, * and #) from outside caller per each VAU message (Command 2205).

Related Features

Trunk Outgoing Call

An outside caller cannot use DUD to place Trunk line through the system.

Direct Universal Dialing (DUD)

Outside caller can call to the desired extension directly from outside by adding the extension number after the system automatically answered. **Delayed DUD feature should require the basic DUD assignment.**

Automated Attendant for DUD / DISA (VAU)

When the system answered for incoming call automatically on DUD / DISA Line, pre-recorded voice message / guidance can be sent to caller if VAU is connected. In case that the voice message / guidance function is required, VAU assignment should be set.

Operation

To place a DUD call into the system (from any telephone with DTMF sender):

1. Dial the telephone number that rings the DUD Trunk line.
2. Wait for the DUD Trunk line to automatically answer with a unique dial tone.
3. Dial a system extension directly.

When the system has DUD Talkie.:

1. Dial the telephone number that rings the DUD Trunk line.
2. Wait for the DUD Talkie automatically answer.
3. Hear the automatic announcement.
4. Wait for a unique dial tone.
5. Dial a system extension directly.

External Alarm Sensor

Description

The system provides up to 8 alarm sensors that you can connect to customer-provide alarm contacts. When the alarm contact activates, designated extensions broadcast a unique alert tone. This lets the extension users know that the alarm has been activated. External Alarm Sensors could help a receptionist, for example, that frequently has to leave the reception desk to do some filing. When a visitor opens the company's door, an alarm contact on the door could signal a telephone in the filing area. When the receptionist hears the alarm alert tone, they know it's time to return to the reception area and greet the visitor. The alarm alert tone continues as long as the door remains open.

Conditions

Each external alarm uses an alarm sensor circuit in the PGDU card. The PGDU alarm sensor circuit requires 5 - 24 VDC power supply in series with the alarm contacts. Refer to the hardware manual for additional details.

Default Setting

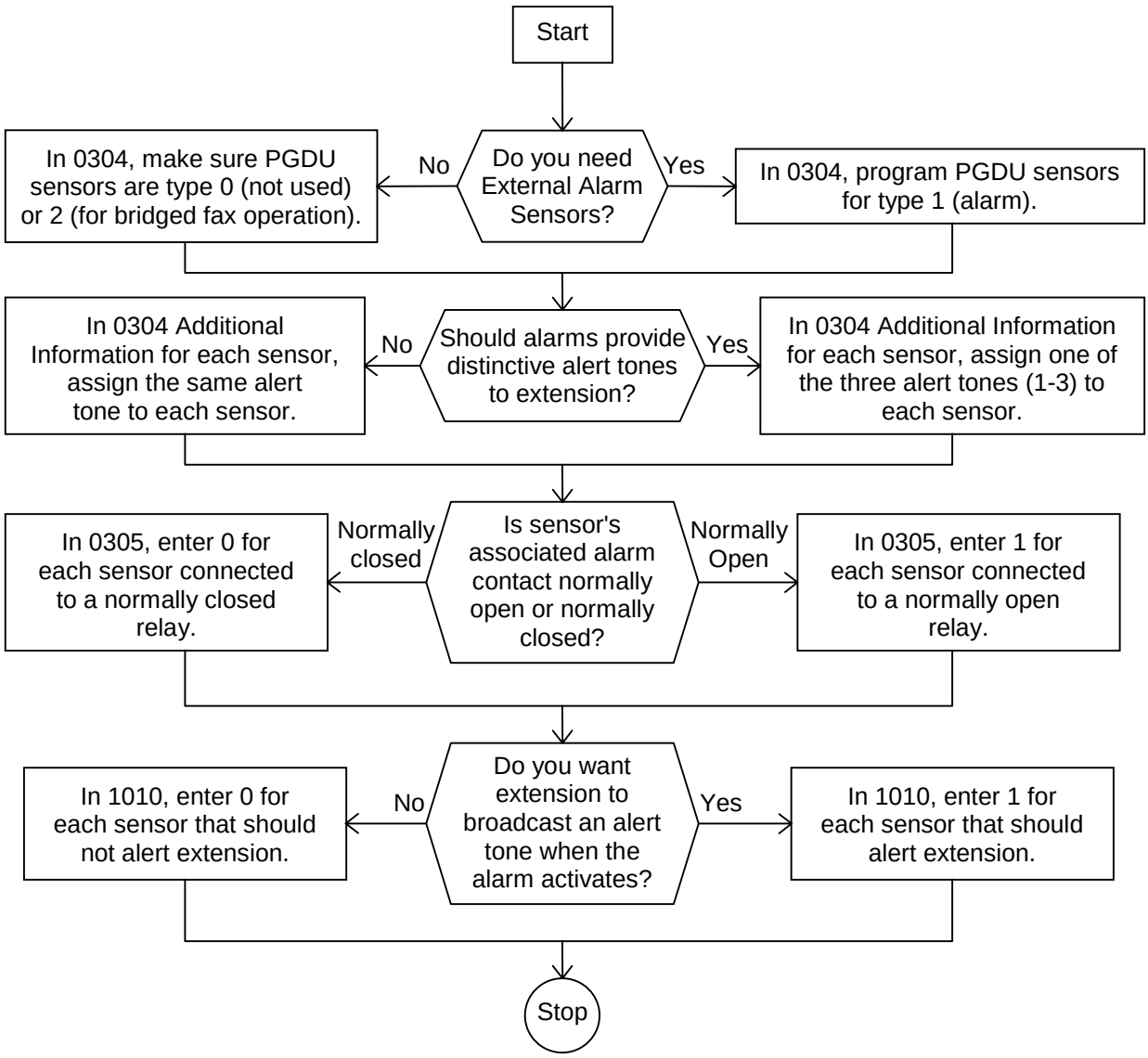
- PGDU sensors 1-8 (card 1&2) are set as alarm sensors.
- PGDU sensors are normally open.
- External alarms don't alert extensions.

Options

DX2E-4PGDU-S1

External Alarm Sensor (Cont'd)

Programming


Start
Do you need External Alarm Sensors?
No
In 0304, make sure PGDU sensors are type 0 (not used) or 2 (for bridged fax operation).
Yes
In 0304, program PGDU sensors for type 1 (alarm).
Should alarms provide distinctive alert tones to extension?
No
In 0304 Additional Information for each sensor, assign the same alert tone to each sensor.
Yes
In 0304 Additional Information for each sensor, assign one of the three alert tones (1-3) to each sensor.
Is sensor's associated alarm contact normally open or normally closed?
Normally closed
In 0305, enter 0 for each sensor connected to a normally closed relay.
Normally Open
In 0305, enter 1 for each sensor connected to a normally open relay.
Do you want extension to broadcast an alert tone when the alarm activates?
No
In 1010, enter 0 for each sensor that should not alert extension.
Yes
In 1010, enter 1 for each sensor that should alert extension.
Stop

External Alarm Sensor (Cont'd)

Programming (Cont'd)

> 0304 – Alarm Sensor/FAX Sensor Setup (PGDU Card)
For external alarm sensors, program the PGDU sensor for alarm (type 1) and alarm ring tone (1-3).

> 0305 – Alarm Sensor Activation Mode (PGDU Card)
Program each alarm sensor for normally closed (0) or normally open (1) operation.

> 1010 – Alarm Sensor Ringing Extension Setup
Determine which alarms should alert which extensions. For each sensor, enter 1 to ring extension or 0 to not ring extension.

Related Features

None

Operation

If you program an extension to activate for an alarm and the alarm occurs, the alarm alert tone continues at the extension until the alarm condition goes away.

External Call Forward

Description

This feature allows specified incoming callers (ISDN, DUD/DISA, DIL, E&M and Intercom) to be transferred automatically to the pre-programmed external party. The destination telephone number for "External Call Forward" is stored in Common Abbreviated Dial area. This feature may be used in case that the extension user is absent. All incoming calls for him/her shall automatically be transferred to his/her desired external party. (ex. Mobile-Phone)

Conditions

- This feature is available for Key Telephone and Single Line Telephone.

(Note1) This feature is not available for normal incoming call on the normal line. (0901-14_17=0)

(Note2) This feature is not available in case of "Chained-Call Forward". (eg. Ext.A forwards to Ext.B. Then, Ext.B sets "Call Forward" to "ABB001".)

(Note3) After the calling party has connected to the desired external party, the system shall take 2 deferent ways of disconnection procedure according to the type of incoming line as below:-

- If incoming line type is DUD, DISA or DIL (0901-14_17=1,2 or 4) on Analogue trunk, then the system sends alert tone on the conversation to remind. (In case 0517 is completed, continue/discontinue code can be used, except DIL feature.)

  <*Note*> *In case of Busy Tone Detection program is activated (0921-Item10=0), then the trunk line shall automatically be cut when one of parties hangs up, then.*

- If incoming line type is ISDN or E&M, then the both parties can speak and hung up simply without special operations.

Default Setting

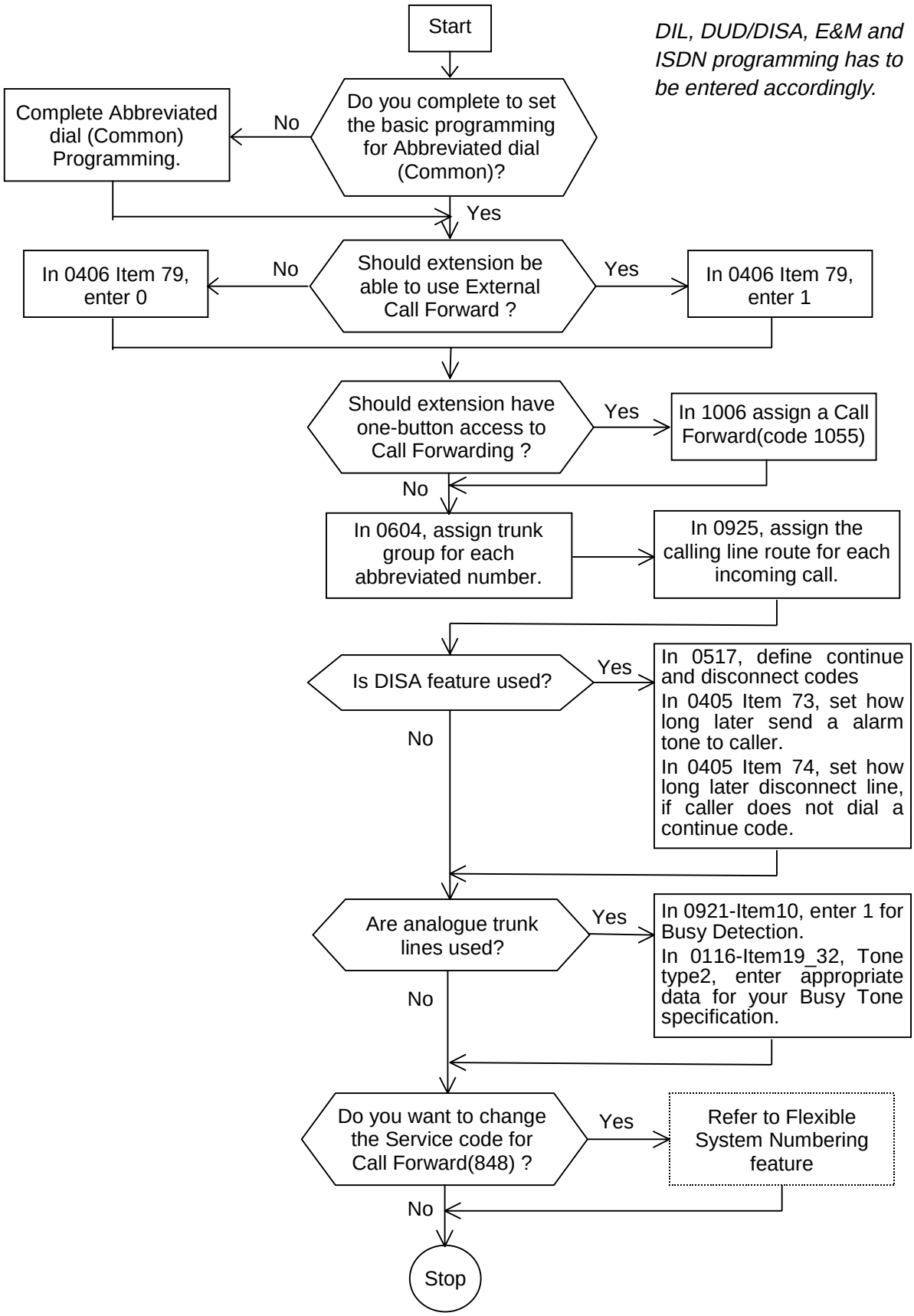
- This feature is not assigned.
- Service code for "Call Forward" is 848.
- Function key code for "Call Forward" is 1055.

Option (Required Items)

- ISDN, DUD/DISA, DIL, E&M Facility

External Call Forward (Cont'd)

Programming


Start
Do you complete to set the basic programming for Abbreviated dial (Common)?
No
Complete Abbreviated dial (Common) Programming.
Yes
Should extension be able to use External Call Forward ?
No
In 0406 Item 79, enter 0
Yes
In 0406 Item 79, enter 1
Should extension have one-button access to Call Forwarding ?
Yes
In 1006 assign a Call Forward(code 1055)
No
In 0604, assign trunk group for each abbreviated number.
In 0925, assign the calling line route for each incoming call.
Is DISA feature used?
Yes
In 0517, define continue and disconnect codes
In 0405 Item 73, set how long later send a alarm tone to caller.
In 0405 Item 74, set how long later disconnect line, if caller does not dial a continue code.
No
Are analogue trunk lines used?
Yes
In 0921-Item10, enter 1 for Busy Detection.
In 0116-Item19_32, Tone type2, enter appropriate data for your Busy Tone specification.
No
Do you want to change the Service code for Call Forward(848) ?
Yes
Refer to Flexible System Numbering feature
No
Stop

DIL, DUD/DISA, E&M and ISDN programming has to be entered accordingly.

External Call Forward (Cont'd)

Programming (Cont'd)

> 0116 – DTMF and Dial Tone Detection Setup: (Item19 - Item32 for Tone type2)
If 0921-Item10 is set to 0 (for BT detection ON), then enter appropriate data of your exchange busy tone.

> 0405 – System Timers, Part A Item 73 : DISA conversation
Item 74 : DISA conversation disconnect
Set the timers for DUD, DISA or DIL function on Analogue trunk.

> 0406 – Class Of Service Options Item 79 : External Call Forward
In extension's Class of Service, enable (1) or disable (0) for the "External Call Forward".

> 0511 – Service Code Setup, Part A Item 85 : Call Forward
Assign the Service Code for "Call Forward".

> 0511 – Service Code Setup, Part A Item 23 : Common abbreviated dial
Assign the Service Code for "Common Abbreviated Dial".

> 0517 – DISA control code
Assign the code for continue/disconnect the conversation.

> 0921 – Basic Trunk Port Setup, Part B : Item10 Busy Tone Detection
Enable(0) or disable (1) for busy tone detection for cutting off the paths

> 0925 – Route Table Setup for Trunk on External Call Forward
Assign the Exchange Line Route for "External Call Forward" for each incoming call.

> 1006 – Programming Function Keys Function No. : 1055
One of the idle Function key is assigned as "Call Forward" key.

Related Features

Abbreviated Dialing

The destination telephone number for "External Call Forward" is stored in Common Abbreviated Dial area.

External Call Forward (Cont'd)

Operation

< Key Telephone >

To activate External Call Forward

1. Press idle CL key. Dial 848 ( ) for Call Forward.
   OR
   Press Call Forward key. (Command 1006 : code 1055)
2. Dial "1" to setup.
3. Dial 813 ( ) for Common Abbreviated dial access instead of extension No. entering.
4. Dial target abbreviated dial number. *(Confirmation Tone will be heard.)*
5. Press SPK to finish.

To cancel External Call Forward

1. Press idle CL key.
2. Dial 848 ( ) for Call Forward.
   OR
   Press Call Forward key. (Command 1006 : code 1055)
3. Dial "0" to cancel. *(Confirmation Tone will be heard.)*
4. Press SPK to finish.

< Single Line Telephone >

To activate External Call Forward

1. Lift handset.
2. Dial 848 ( ) for Call Forward.
3. Dial "1" to setup.
4. Dial 813 ( ) for Common Abbreviated dial access instead of extension No. entering.
5. Dial target abbreviated No.. *(Confirmation Tone will be heard.)*
6. Hang up to finish.

To cancel External Call Forward

1. Lift handset.
2. Dial 848 ( ) for Call Forward.
3. Dial "0" to cancel. *(Confirmation Tone will be heard.)*
4. Hang up to finish.

External Music On Hold

Description

A customer provided music source (i.e., tape/CD player, radio) can be connected to the system (through 32CPRU) for Music On Hold (MOH) purpose instead of internal synthesized melody. Or 3ACI module provides the connectivity of the above music sources as well.

For the details of switch setting or the connections, refer to Hardware manual.

Condition

The feature available for key telephone and single line telephone.

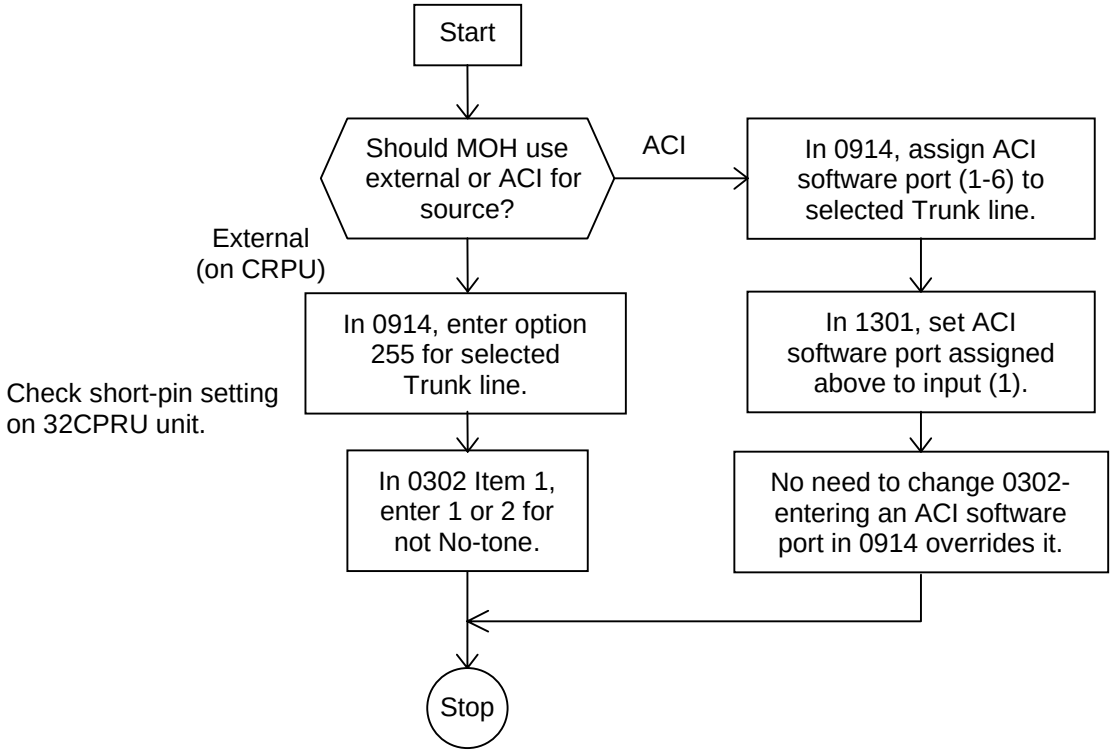
Default Setting

- All Trunk Lines use the internal Music on Hold source.
- ACI port type is no setting.

Options

Music Device or DX2E-3ACI-A

Programming


Start
Should MOH use external or ACI for source?
ACI
In 0914, assign ACI software port (1-6) to selected Trunk line.
External (on CRPU)
In 0914, enter option 255 for selected Trunk line.
In 1301, set ACI software port assigned above to input (1).
Check short-pin setting on 32CPRU unit.
In 0302 Item 1, enter 1 or 2 for not No-tone.
No need to change 0302- entering an ACI software port in 0914 overrides it.
Stop

External Music On Hold (Cont'd)

Programming (Cont'd)

> 0302 – Music on Hold and Conference Setup. Item 1: Music on Hold tone
Set the Music on Hold selection. The options are 0 (no tone), 1 (synthesized Minuet in G), 2 (synthesized Nocturne). *For external MOH purpose, don't set "0".*

> 0914 – Setting the Music on Hold Source
Set the Music on Hold source.

> 1301 – Basic ACI port setup
Set the ACI port type. The option are 0 (no setting), 1 (Input for ACI port), 2 (Output for ACI port).

Related Feature

Music on Hold

Operation

None

Flash

Description

Flash allows an extension user to access certain CO and PBX features by interrupting Trunk Line loop current. Flash lets an extension user take full advantage of whatever features the connected public network or PBX offers. You must set appropriate Flash parameters for compatibility with the connected public network or PBX lines.

Conditions

This feature available for key telephone and single line telephone (by service code).

The system does not provide a ground flash.

Default Setting

Flash timer (Hooking 1) is 800 mS.

Open Loop Disconnect timer is 2.496 seconds.

A single line telephone extension's Class of Service enables Flash.

Flash is always set for open loop (not ground).

All Trunk Line use timed Flash mode (not open loop disconnect).

Options

None

Programming

Note: See programming flow chart on the following page.

> 0114 – Analog Trunk Line (ATRU Card) Timers, Item 9: Hooking Time 1 (for timed flash)
  Set the Flash duration (16-4080 mS) for analog Trunk Line (ATRU Card) circuits.

> 0114 – Analog Trunk Line (ATRU Card) Timers, Item 10: Hooking Time 2 (for disconnection)
  Set the open loop disconnect duration (16-4080 mS) for analog Trunk Line (ATRU Card) circuits.

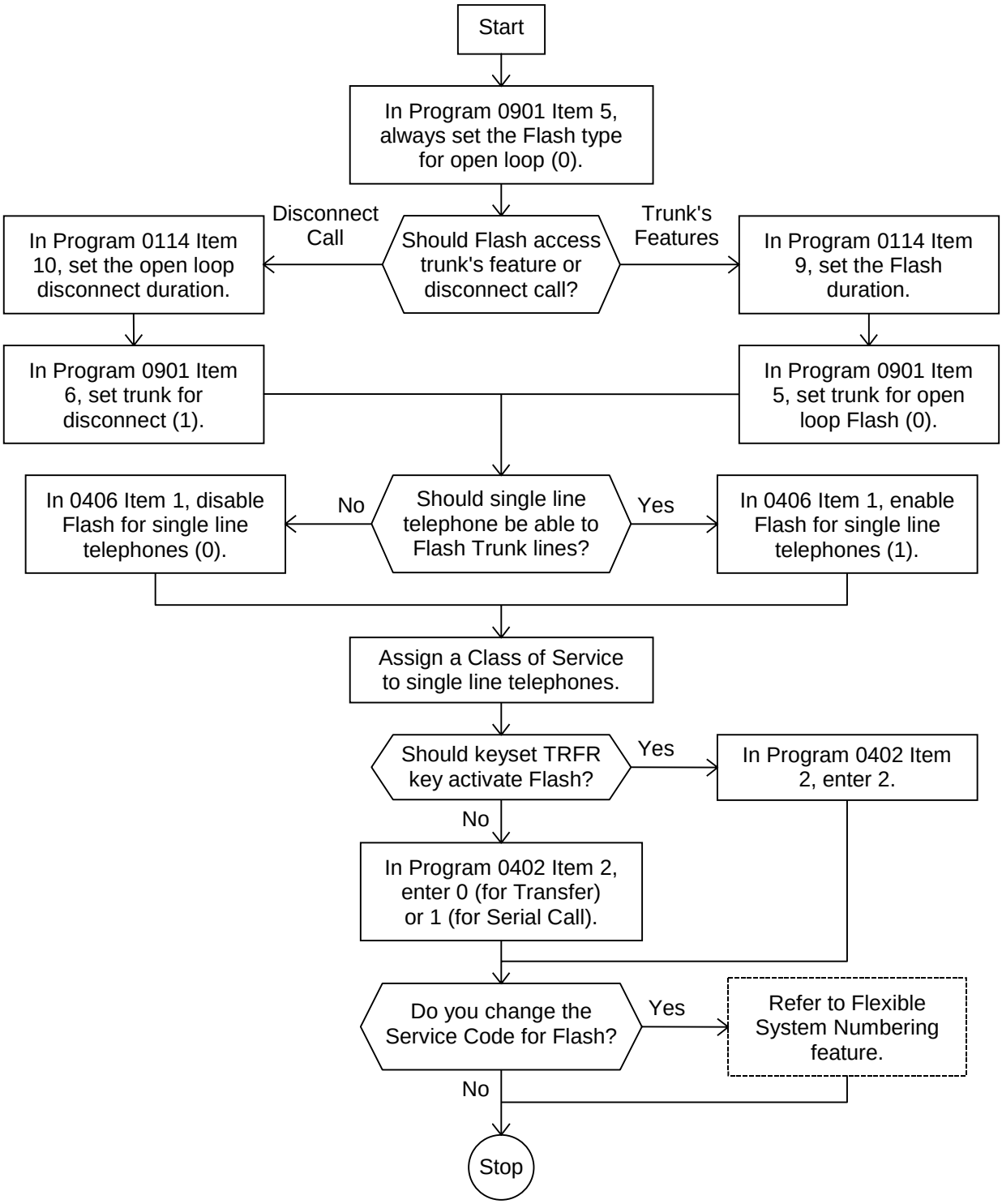
> 0402 – System Options, Part B, Item 2: Transfer Key Operating Mode
  If TRFR key should access Flash, enter 2. Otherwise, enter 0 or 1.

> 0406 – COS Options, Item 1: Hooking (SLT set)
  In a single line telephone's Class of Service, enable (1) or disable (0) the ability to hookflash for system feature access.

> 0511 – Service Code Setup, Part A Item 34: Hooking (Flashing)
  Assign a service code of hooking (flashing).

Flash (Cont'd)

Programming (Cont'd)


Start
In Program 0901 Item 5, always set the Flash type for open loop (0).
Should Flash access trunk's feature or disconnect call?
Disconnect Call
Trunk's Features
In Program 0114 Item 10, set the open loop disconnect duration.
In Program 0114 Item 9, set the Flash duration.
In Program 0901 Item 6, set trunk for disconnect (1).
In Program 0901 Item 5, set trunk for open loop Flash (0).
Should single line telephone be able to Flash Trunk lines?
No
Yes
In 0406 Item 1, disable Flash for single line telephones (0).
In 0406 Item 1, enable Flash for single line telephones (1).
Assign a Class of Service to single line telephones.
Should keyset TRFR key activate Flash?
Yes
In Program 0402 Item 2, enter 2.
No
In Program 0402 Item 2, enter 0 (for Transfer) or 1 (for Serial Call).
Do you change the Service Code for Flash?
Yes
Refer to Flexible System Numbering feature.
No
Stop

Flash (Cont'd)

Programming (Cont'd)

> 0901 – Basic Trunk Line Port Setup, Part A
Item 5: Hooking/Grounding
Make sure this item is set for open loop Flash (0).

> 0901 – Basic Trunk Line Port Setup, Part A Item 6: Hooking Type
For each Trunk Line, indicate if Flash is for Flash (0) or open loop disconnect (1).

> 1005 – Class of Service for Extension
Assign a Class Of Service (1-10) to an extension.

Related Features

PBX Compatibility

If the system is behind a PBX, Flash normally gives the extension user access to many PBX features.

Toll Restriction

The system applies Toll Restriction (if applicable) to the number a user dials after flashing a Trunk Line.

Operation

<Key Telephone>

To flash the Trunk Line:

1. Press FLSH.

<Single Line Telephone>

To flash the Trunk Line:

1. Hooking
2. Dial 806( ).
(Confirmation tone is heard.)

Flexible System Numbering

Description

Flexible System numbering lets you reassign the system's port-to-extension and Service Code of function assignments. This allows an employee to retain their extension number if they move to a different office. And or usual used Service Code change to two digits numbering.

In addition, factory technicians can make comprehensive changes to your system's number plan. You can have factory technicians:

- Set the number of digits in internal (Intercom) functions. For example, extension numbers can be up to four digits long.
- Change your system's Service Code numbers.
- Assign single digit access to selected Service Codes.

Talk to your sales representative to find out if this program is available to you.

You can also use Flexible System numbering to change the system's Trunk Line Group Routing code. Although the default code of 9 is suitable for most applications, you can alter the code if you have to.

Conditions

Programming follows a telephone's port number, not the extension number.

If you relocate a phone, you may need to change additional programming.

Default Setting

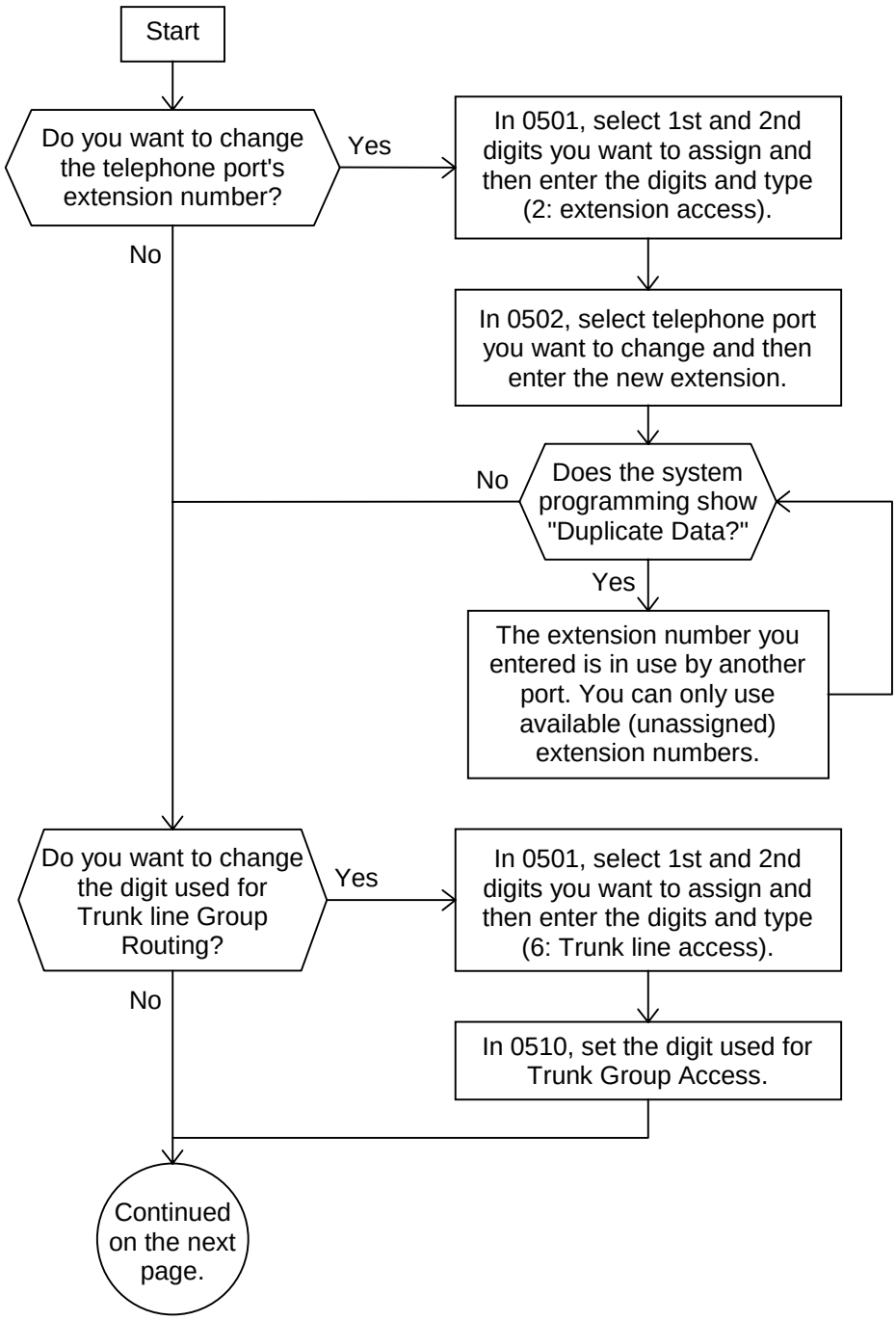
- Extensions are numbered consecutively from 200 (port 01) to 271 (port 72).
- Virtual Extension number not assigned.
- The Trunk Line Group Routing access code is 9.
- Operator access code is 0.
- For Service Code, first digit is 7 and 8, both are 3 digits long. (700-899)

Options

None

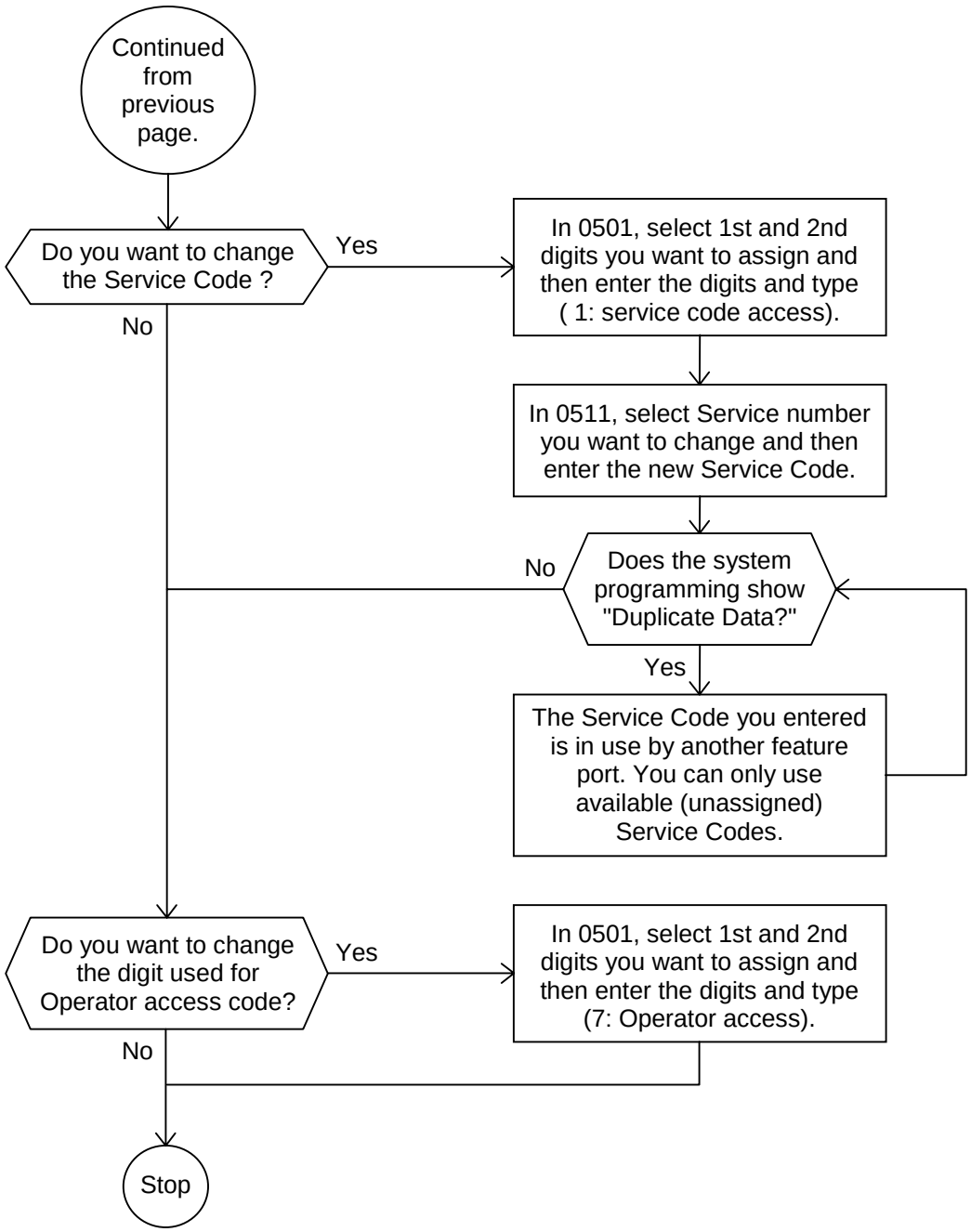
Flexible System Numbering (Cont'd)

Programming


Start
Do you want to change the telephone port's extension number?
Yes
No
In 0501, select 1st and 2nd digits you want to assign and then enter the digits and type (2: extension access).
In 0502, select telephone port you want to change and then enter the new extension.
Does the system programming show "Duplicate Data?"
No
Yes
The extension number you entered is in use by another port. You can only use available (unassigned) extension numbers.
Do you want to change the digit used for Trunk line Group Routing?
Yes
No
In 0501, select 1st and 2nd digits you want to assign and then enter the digits and type (6: Trunk line access).
In 0510, set the digit used for Trunk Group Access.
Continued on the next page.

Flexible System Numbering (Cont'd)

Programming (Cont'd)


Continued from previous page.
Do you want to change the Service Code ?
Yes
No
In 0501, select 1st and 2nd digits you want to assign and then enter the digits and type (1: service code access).
In 0511, select Service number you want to change and then enter the new Service Code.
No
Does the system programming show "Duplicate Data?"
Yes
The Service Code you entered is in use by another feature port. You can only use available (unassigned) Service Codes.
Do you want to change the digit used for Operator access code?
Yes
No
In 0501, select 1st and 2nd digits you want to assign and then enter the digits and type (7: Operator access).
Stop

Flexible System Numbering (Cont'd)

Programming (Cont'd)

> 0501 – System numbering
  Assign first and second digits of system numbering, feature type of dial, and digit length. (e.x. Extension number is three digits of first digit are 2. Feature access service code is three digits of first digit are 8. Operator access is one digits of first digit is 0.)
> 0502 – Extension Numbers and Names
  Assign extension numbers to extension ports. The telephone's programming identity follows the port number – not the extension number.
> 0510 – Trunk Line Access Code
  Assign the Trunk Line Group Routing ("dial 9") access code.
> 0511 – Service Code Setup, Part A
  Assign Service Code number of each feature.
> 0514 – Service Code Setup, Part B
  Assign Service Code number of each feature.

Related features

None

Operation

Refer at the beginning section of this issue.

Follow Me

Description

While at a co-worker's desk, a user can have Follow Me redirect their calls to the co-worker's extension. This helps an employee who gets detained at a co-worker's desk longer than expected. To prevent losing important calls, the employee can activate Follow Me from the co-worker's phone.

Follow Me reroutes calls from the destination extension. To reroute calls from the initiating (forwarding) extension, use Call Forwarding.

Conditions

This feature available for key telephone and single line telephone.

Default Setting

- An extension's Class of Service allows the setting of Follow Me.
- Service Code of Follow Me is dial 846.

Options

None

Programming

> 0406 – COS Options, Item 26: Follow-Me
  In an extension's Class of Service (1-10) to an extension.

> 0511 – Service Code Setup, Part A
  Assign a service code for Follow Me (Item 9: dial 846)

> 1005 – Class of Service for Extension
  Assign a Class of Service (1-10) to an extension.

> 1006 – Programming Function Keys
  Assign a function key for Follow Me (code 1001).

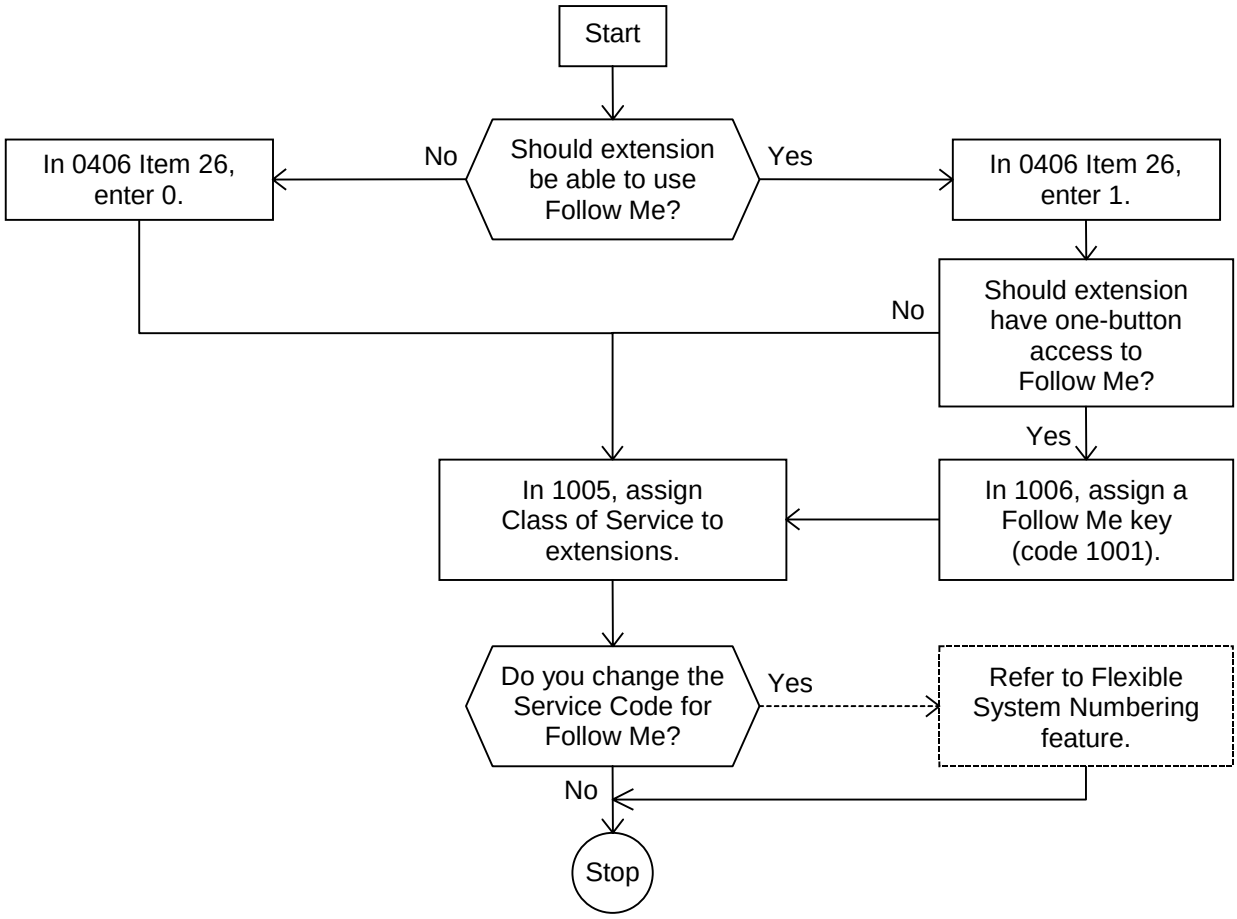
Related Features

Programmable Function Key

Function keys simplify Follow Me operation.

Follow Me (Cont'd)

Programming (Cont'd)


Start
Should extension be able to use Follow Me?
No
Yes
In 0406 Item 26, enter 0.
In 0406 Item 26, enter 1.
Should extension have one-button access to Follow Me?
No
Yes
In 1005, assign Class of Service to extensions.
In 1006, assign a Follow Me key (code 1001).
Do you change the Service Code for Follow Me?
Yes
Refer to Flexible System Numbering feature.
No
Stop

Follow Me (Cont'd)

Operation

<Key Telephone>

To activate Follow Me:

Use this procedure at the extension that will receive Forwarded calls (destination).

1. Press Follow Me key (PGM 1006 or SC 851: 1001).
   OR
   Press idle CL key and dial 846( ).
2. Dial 1 to set Call key Following.
3. Dial the extension who's calls you want to intercept (source).
   (Confirmation tone is heard.)
   Repeat steps 1-3 to enable Call Following with Follow Me for additional extensions.
4. Press SPK to hang up.

To cancel or reroute Follow Me:

1. Press Follow Me key (PGM 1006 or SC 851: 1001)
   OR
   Press idle CL key and dial 846( ).
2. Dial 0.
3. Dial another extension number to change the source.
   OR
   Dial 0 to cancel Call Forwarding.
   (Confirmation tone is heard.)
4. Press SPK to hang up.

<Single Line Telephone>

To activate Follow Me:

Use this procedure at the extension that will receive Forwarded calls (destination).

1. Off hook and dial 846( ).
2. Dial 1 to set Call key Following.
3. Dial the extension who's calls you want to intercept (source),
   (Confirmation tone is heard.)
   Repeat steps 1-3 to enable Call Following with Follow Me for additional extensions.
4. On hook.

Follow Me (Cont'd)

Operation

<Single Line Telephone> (Cont'd)

To cancel or reroute Call Forwarding with Follow Me:

1. Off hook and dial 846( ).
2. Dial 0.
3. Dial another extension number to change the source.

   OR

   Dial 0 to cancel Call Forwarding.
   (Confirmation tone is heard.)
4. On hook.

Forced Trunk Disconnection

Description

Forced Trunk Disconnection lets a user forced to disconnect for a busy trunk, if the system have trouble which cannot disconnect trunk by on hook or if outside caller have long conversation.

<Caution!> This feature may be assigned for only the system administrator type of station(s). Assign this feature carefully.

Conditions

This feature available for key telephone and single line telephone.

Default Setting

- Service Code for Forced Trunk Disconnection is dial 724.
- An extension's Class of Service does not permit it to be used Forced Trunk Disconnection.

Options

None

Programming

> 0406 – Class of Service Options, Item 120: Forced Trunk Disconnection
> In an extension's Class of Service, enable (1) or disable (0) Forced Trunk Disconnection.

> 0514 – Service Code Setup, Part B Item 14: Forced Trunk Disconnection
> Assign a service code for Forced Trunk Disconnection.

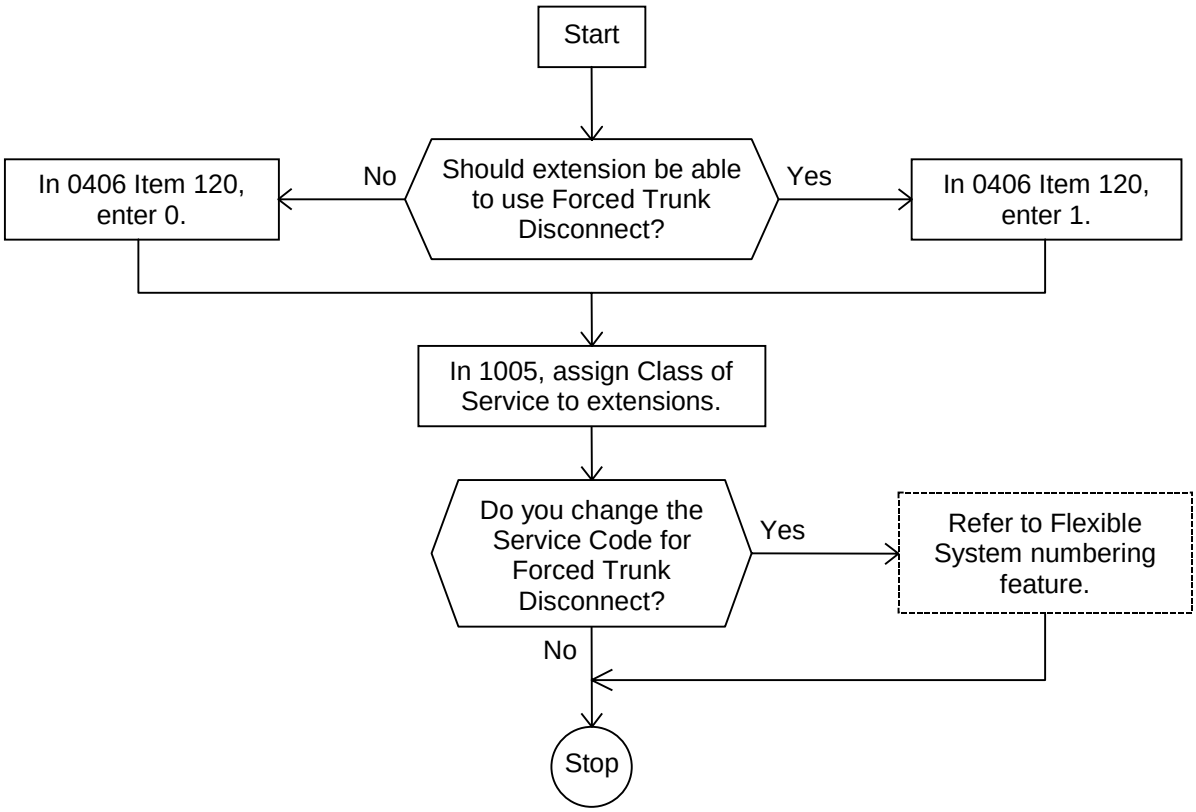
> 1005 – Class of Service for Extension
> Assign a class of service (1-10) to an extension.

Related Features

None

Forced Trunk Disconnection (Cont'd)

Programming (Cont'd)


Start
Should extension be able to use Forced Trunk Disconnect?
No
In 0406 Item 120, enter 0.
Yes
In 0406 Item 120, enter 1.
In 1005, assign Class of Service to extensions.
Do you change the Service Code for Forced Trunk Disconnect?
Yes
Refer to Flexible System numbering feature.
No
Stop

Forced Trunk Disconnection (Cont'd)

Operation

<Key Telephone>

To disconnect the busy trunk:

1. Press idle CL key.
2. Dial 805( ). <Trunk Line Access code>
3. Dial trunk port number (01-52).
   (Busy tone is heard.)
4. Dial 724( ).
5. Press SPK to hang up.

<Single Line Telephone>

To disconnect the busy trunk:

1. Off hook.
2. Dial 805( ). <Trunk Line Access code>
3. Dial trunk port number (01-52).
   (Busy tone is heard.)
4. Dial 724( ).
5. On hook.

General Message (VAU)

Description

General Messages gives key telephone users to listen guidance, message, and etc. Key telephone user can listen General Message on VAU when dial "4" without seizing internal dial tone.

General Message can be recorded by user from key telephone.

Message waiting lamp of all extensions will be light on, when user records new General Message. And then, an extension user listen General Message, message waiting lamp will light off.

Conditions

This feature is available for key telephone and single line telephone.

Options

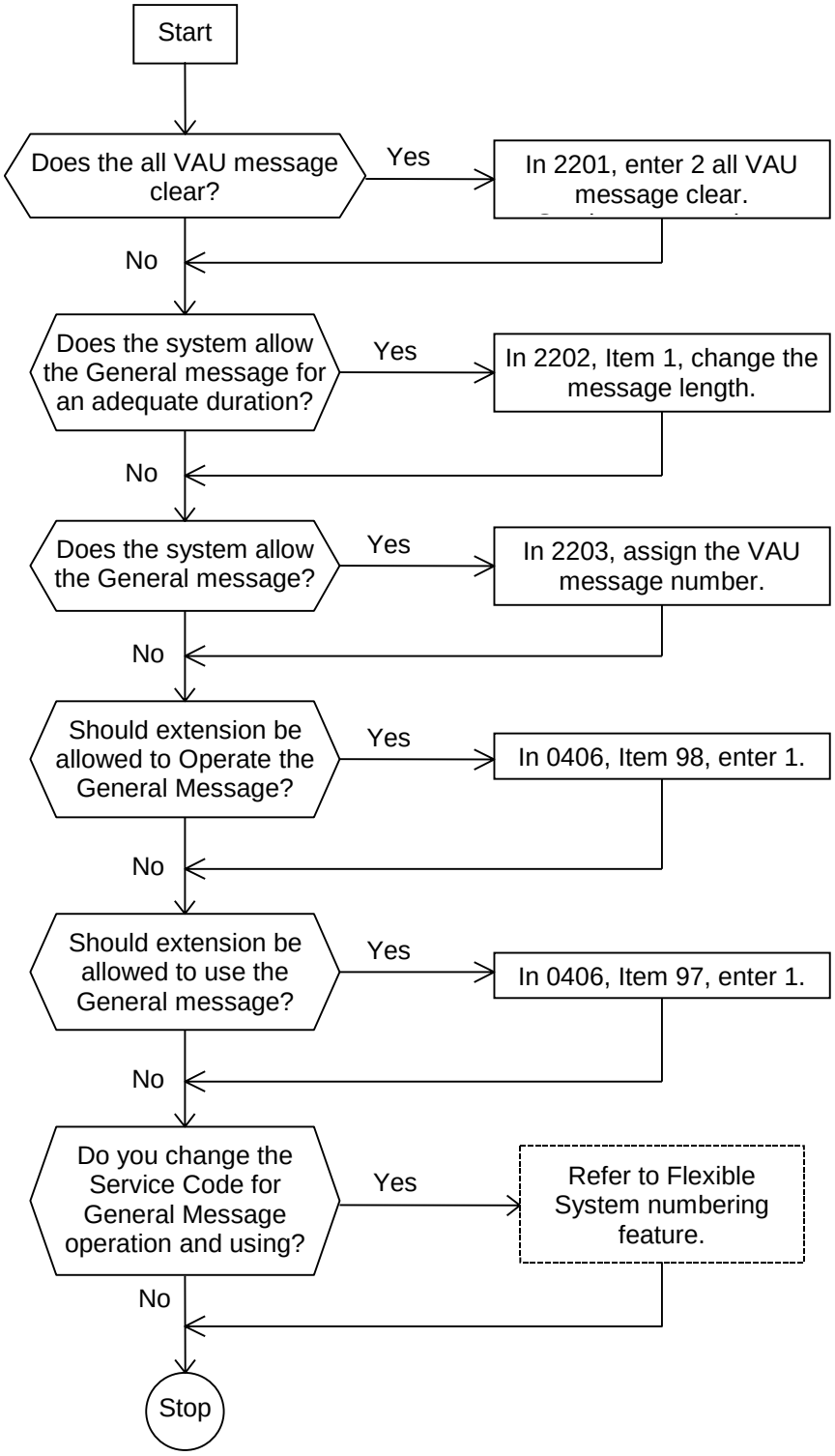
DX2E-VAU-A

Programming

> 2201 – VAU Reset
  Erase the VAU Personal message and VAU message.
> 2202 – Message Length Assignment for VAU
  Assign the maximum message length for VAU message and Personal message.
> 2203 – General Message Number Assignment
  Assign the VAU Message number is used by General Message.

General Message (VAU) (Cont'd)

Programming (Cont'd)


Start
Does the all VAU message clear?
Yes
In 2201, enter 2 all VAU message clear.
No
Does the system allow the General message for an adequate duration?
Yes
In 2202, Item 1, change the message length.
No
Does the system allow the General message?
Yes
In 2203, assign the VAU message number.
No
Should extension be allowed to Operate the General Message?
Yes
In 0406, Item 98, enter 1.
No
Should extension be allowed to use the General message?
Yes
In 0406, Item 97, enter 1.
No
Do you change the Service Code for General Message operation and using?
Yes
Refer to Flexible System numbering feature.
No
Stop

General Message (VAU) (Cont'd)

Related Features

Dial Number Preview

When you use VAU Adaptor, you can use Dial Number Preview feature after dial *.

Operation

<Key Telephone>

To listen the General Message:

1. Do not lift the handset and do not press a CL key.
2. Dial 4.

OR

1. Press idle CL key.
2. Dial 711( ).
3. Listen General Message.
4. Press SPK to hang up.

OR

1. Press idle CL key.
2. Dial 712( ).
3. Dial 5.
4. Listen General Message.
5. Press SPK to hang up.

To operate the General Message

1. Press idle CL key.
2. Dial 712( ).

3-a. Dial 3 (erase).

4-a. Press SPK to hang up. (Finish).

OR

Dial 5 (cancel and listen: go to 4-b)

OR

Dial 7 (cancel and re-record: go to 4-c)

3-b. Dial 5 (listen).

4-b. listen General Message.

5-b. Press SPK to hang up. (Finish).

OR

Dial 3 (erase: go to 4-b)

OR

Dial 7 (re-record: go to 4-c)

General Message (VAU) (Cont'd)

Operation (Cont'd)

<Key Telephone> (Cont'd)

To operate the General Message (Cont'd)

3-c. Dial 7 (re-record).
4-c. Hear "Please start recording <beep>".
OR
Hear three times of beep tone.
5-c. Press SPK to hang up. (Finish).
OR
Dial 3 (erase: go to 4-a)
OR
Dial 5 (listen: go to 4-b)

<Single Line Telephone>

To listen the General Message:

1. Off-hook.
2. Dial 711( ).
3. Listen General Message.
4. On-hook.

To operate the General Message

1. Off hook.
2. Dial 712( ).

3-a. Dial 3 (erase).
4-a. On hook. (Finish).
OR
Dial 5 (cancel and listen: go to 4-b)
OR
Dial 7 (cancel and re-record: go to 4-c)
3-b. Dial 5 (listen).
4-b. Listen General Message.
5-b. On hook. (Finish).
OR
Dial 3 (erase: go to 4-a)
OR
Dial 7 (re-record: go to 4-c)

General Message (VAU) (Cont'd)

Operation (Cont'd)

<Single Line Telephone> (Cont'd)

To operate the General Message (Cont'd)

3-c. Dial 7 (re-record).

4-c. Hear "Please start recording <beep>".

OR

Hear three times of beep tone.

5-c. On hook. (Finish).

OR

Dial 3 (erase: go to 4-a)

OR

Dial 5 (listen: go to 4-b)

Group Hunt

Description

With Group Hunt, an extension user can call an idle extension within a preprogrammed Department group by dialing the group's pilot number. The call would ring the first available extension in the group.

For example, this would let a caller dial the Sales department just by knowing the Sales department's pilot number. The caller would not have to know any of the Sales department’s extension numbers.

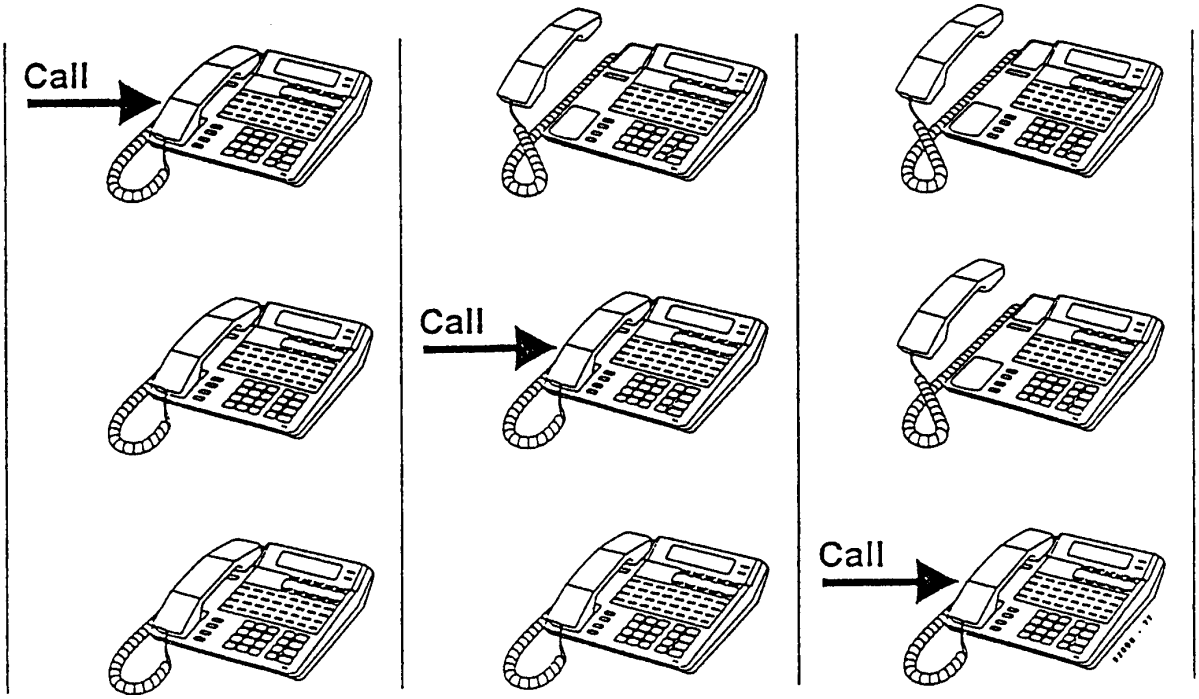
There are two types of routing available with Group Hunt:

Priority Routing and Circular Routing. With Priority Routing, an incoming call routes to the highest priority extensions first. Lower priority extensions ring only if all high priority extensions are busy. With Circular Routing, each call rings a new extension. In a Department Group with extensions 210 (Priority 1), 211 (Priority 2) and 212 (Priority 3)

- The first call rings 210.
- The second call rings 211.
- The third call rings 212.
- The fourth call rings 210 and the cycle repeats.

Note: When programming, the high priority extensions have low priority numbers. For example, priority 1 has a higher priority than priority 10.

Priority Routing



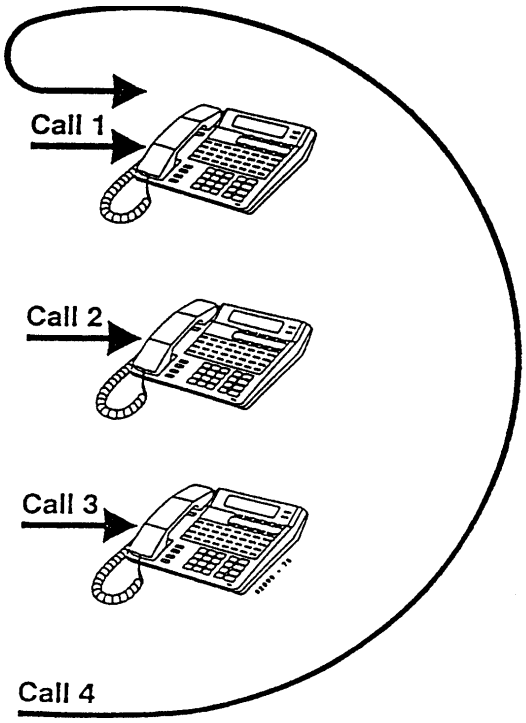
Group Hunt (Cont'd)

Description (Cont'd)

Group Hunt also provides overflow routing for extensions within the group. If a user directly dials a busy extension within a Department Group, the system can optionally route the call to the first available group member. Meanwhile, All Ring mode is available.

- Department Group Withdrawing
  A telephone can withdraw from belonging department group. An extension can not be hunted at the department call while withdrawing from belonging group.
- Manual All ring Mode
  During calling to the Department Group (only highest order extension shall be ringing), Ring Mode can be changed to "All Ring Mode" by dialing Service Code.
- Automatic All Ring mode
  The Ring Mode can be fixed to "All Ring Mode" by programming. When the internal caller accesses to the Department Group, all extensions which are belonging to the Department Group shall ring without any Service Code dialing.
  Note1: The ring mode of all extensions shall be "Signal" even if some Key Telephones are assigned to "Voice".
  Note2 : The mode can not be changed from "All Ring Mode" to "Normal Mode" during a call.

Circular Routing



<Special Note>

This section mainly describes for internal group access. However, in case of outside caller's access such as DUD/DISA, DIL, DDI to station group, the system provides more flexible routing with voice announcement. For the details, refer to "Incoming Queue Message (VAU)" and "DID (DDI) Capability".

Group Hunt (Cont'd)

Conditions

This feature available for key telephone and single line telephone.

Default Setting

- An extension's Class of Service allows Group Hunt.
- A call to a Department Group rings the lowest extension first.
- Callers dialing a busy Department Group member hear busy tone.
- Department Group pilot numbers not assigned.
- All extensions are in Extension (Department) Group 1, with a priority the same as the extension port number.
- Manual All Ring mode (by service code) is assigned.

Options

None

Programming

> 0406 – COS Options, Item 64: Pilot Number Called Extension
  In an extension's Class of Service, allow (1) or prevent (0) Group Hunt.

> 0410 – Extension (Department) Group Options, Item 1: Pilot Call
  Set the routing cycle for calls into a department (i.e., when a user dials the department pilot number). The system can ring the highest priority extension available (Priority) Routing, 0) or cycle in circular order through the group (Circular Routing, 1).

> 0410 – Extension (Department) Group Options, Item 2: Extension Call
  Set how the system routs an Intercom call to a busy Department Group member.
  The caller can hear busy tone (0) or overflow to the first available Department Group member (1). This option is for Intercom calls to an extension, not a pilot number.

> 0410 - Extension (Department) Group Options, Item 4 : STG All Ring Mode
  Assign “Manual All Ring Mode” (0) or “Automatic All Ring Mode” (1) for Department Group Calling.

> 0506 – Department Group Numbers
  Assign names and pilot numbers to the Extension (Department)

> 0512 - One Digit Service Code Setup, Item 10 : STG All Ring Mode
  Assign the One-Digit Service Code for “STG All Ring Mode”.

> 0514 – Service Code Setup, part B Item 40 Department group withdrawing
  Assign a service code of Department group withdrawing.

> 0514 - Service Code Setup, Part B, Item 60 : STG All Ring Mode
  Assign the Service Code for “STG All Ring Mode”.

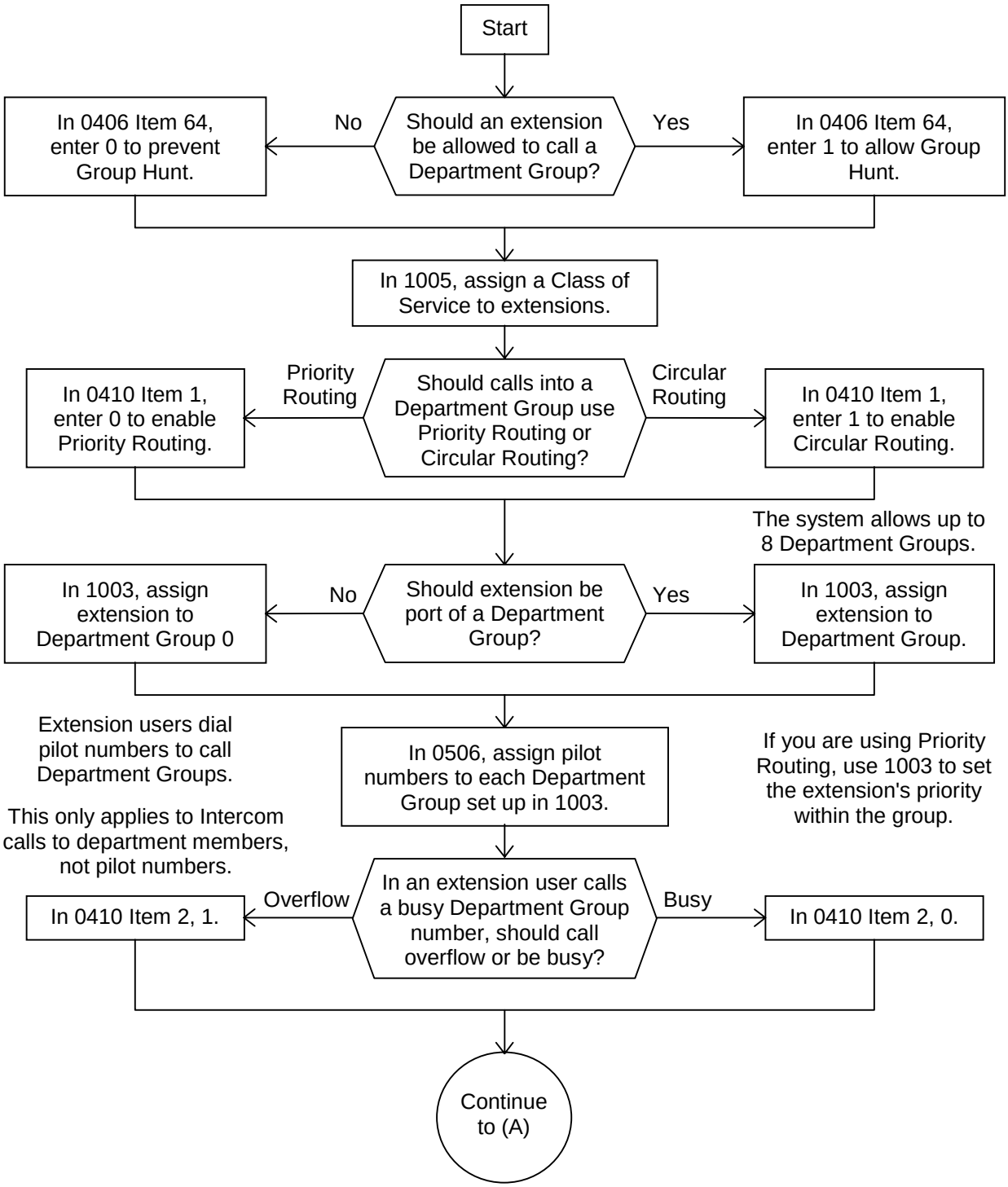
> 1003 – Extension (Department) Groups
  Assign extensions to Department Groups (1-8).

> 1005 – Class of Service for Extension
  Assign a Class of Service (1-10) to an extension.

> 1006 – Programming Function keys
  Assign a function key for Department group withdrawing (Code 1074).

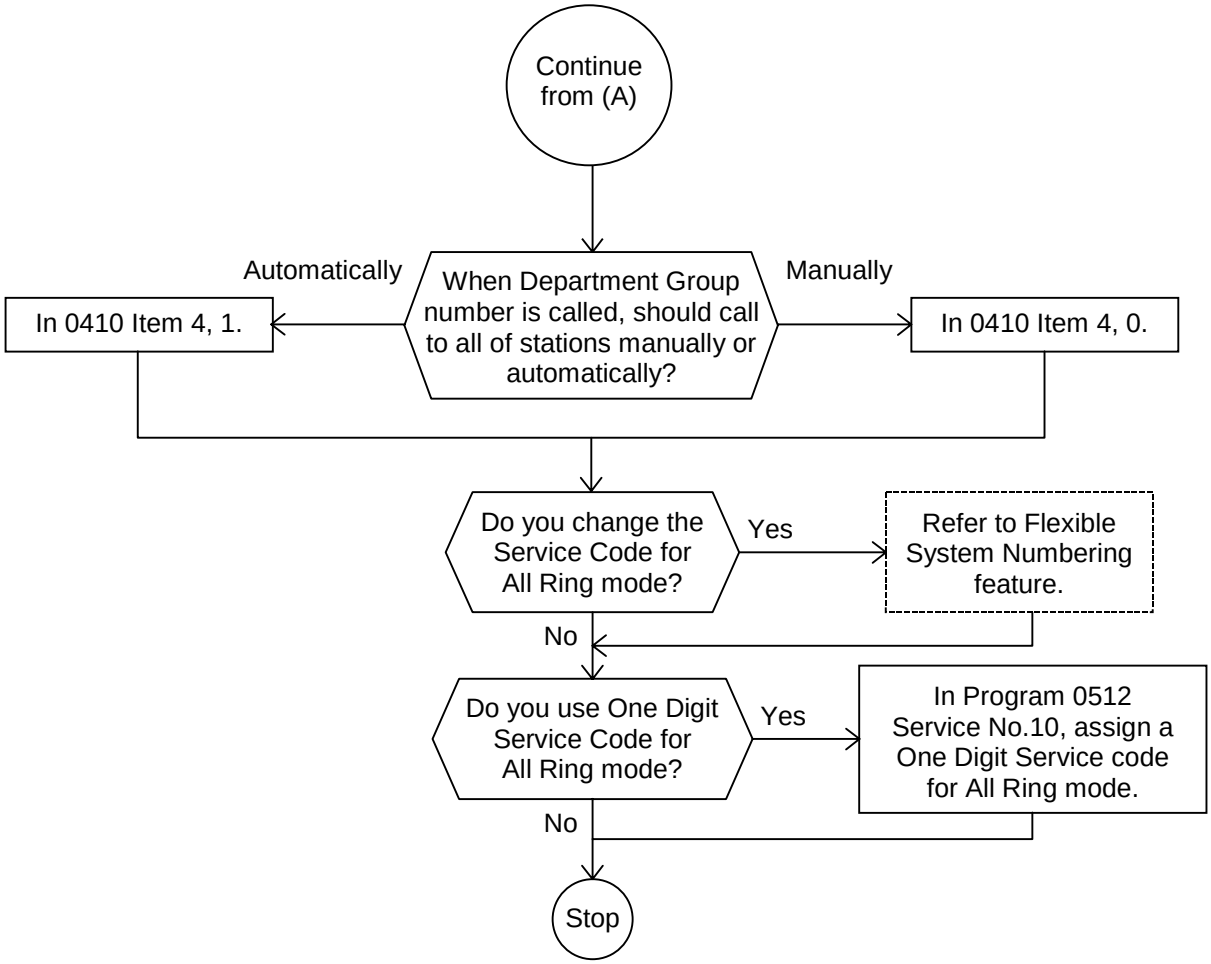
Group Hunt (Cont'd)

Programming (Cont'd)


Start
Should an extension be allowed to call a Department Group?
No
In 0406 Item 64, enter 0 to prevent Group Hunt.
Yes
In 0406 Item 64, enter 1 to allow Group Hunt.
In 1005, assign a Class of Service to extensions.
Should calls into a Department Group use Priority Routing or Circular Routing?
Priority Routing
In 0410 Item 1, enter 0 to enable Priority Routing.
Circular Routing
In 0410 Item 1, enter 1 to enable Circular Routing.
The system allows up to 8 Department Groups.
Should extension be port of a Department Group?
No
In 1003, assign extension to Department Group 0
Yes
In 1003, assign extension to Department Group.
Extension users dial pilot numbers to call Department Groups.
This only applies to Intercom calls to department members, not pilot numbers.
In 0506, assign pilot numbers to each Department Group set up in 1003.
If you are using Priority Routing, use 1003 to set the extension's priority within the group.
In an extension user calls a busy Department Group number, should call overflow or be busy?
Overflow
In 0410 Item 2, 1.
Busy
In 0410 Item 2, 0.
Continue to (A)

Group Hunt (Cont'd)

Programming (Cont'd)


Continue from (A)
When Department Group number is called, should call to all of stations manually or automatically?
Automatically
In 0410 Item 4, 1.
Manually
In 0410 Item 4, 0.
Do you change the Service Code for All Ring mode?
Yes
Refer to Flexible System Numbering feature.
No
Do you use One Digit Service Code for All Ring mode?
Yes
In Program 0512 Service No.10, assign a One Digit Service code for All Ring mode.
No
Stop

Group Hunt (Cont'd)

Related Features

Group Step Calling

Easily step call to an idle Department Group member if the member called is busy.

Incoming Queue Message (VAU)

If outside caller accesses to the station group directly by DUD/DISA, DIL or DID (DDI), then more flexible routings are available.

DID (DDI) Capability

If outside caller accesses to the station group directly by DID (DDI), then more flexible routings are available.

Operation

<Key Telephone>

To call a department:

1. Press idle CL key.
2. Dial department's extension number.
   The system routes the call to the first free phone in the department.

To withdraw from department group

1. Press idle CL key.
2. Dial 750( ).
3. Dial 1.
4. Press SPK to hang up

OR

1. Press Department Group Withdrawing key (SC851: 1074).
   (Department group withdrawing key will be light on.)

To cancel the withdrawing from department group

1. Press idle CL key
2. Dial 750( ).
3. Dial 0.
4. Press SPK to hang up

OR

1. Press lighting Department Group Withdrawing key (SC851: 1074).
   (Department group withdrawing key will be light off.)

Group Hunt (Cont'd)

Operation (Cont'd)

<Key Telephone> (Cont'd)

To use "Manual All Ring Mode" :

1. Press idle CL key.
2. Dial department's extension number.
   The system routes the call to the first free phone in the department.
3. Dial 780 ( ) or One Digit Access code to call all of stations in the group..

<Single Line Telephone>

To call a department:

1. Off hook.
2. Dial department's extension number.
   The system routes the call to the first free phone in the department.

To withdraw from department group

1. Off hook.
2. Dial 750( ).
3. Dial 1.
4. On hook.

To cancel the withdrawing from department group

1. Off hook.
2. Dial 750( ).
3. Dial 0.
4. On hook.

To use "Manual All Ring Mode" :

1. Off hook.
2. Dial department's extension number.
   The system routes the call to the first free phone in the department.
3. Dial 780 ( ) or One Digit Access code to call all of stations in the group..

Group Listening

Description

This feature enables you to listen the speech of other party through the speaker of digital key telephone during handset conversation.

(Caution!) This feature is recommended to be used at ISDN lines or other Digital lines. The speech quality shall not be guaranteed if this feature is used at Analogue trunk lines.

Conditions

- This feature is available only for digital key telephone.

Default Setting

- This feature is not assigned.

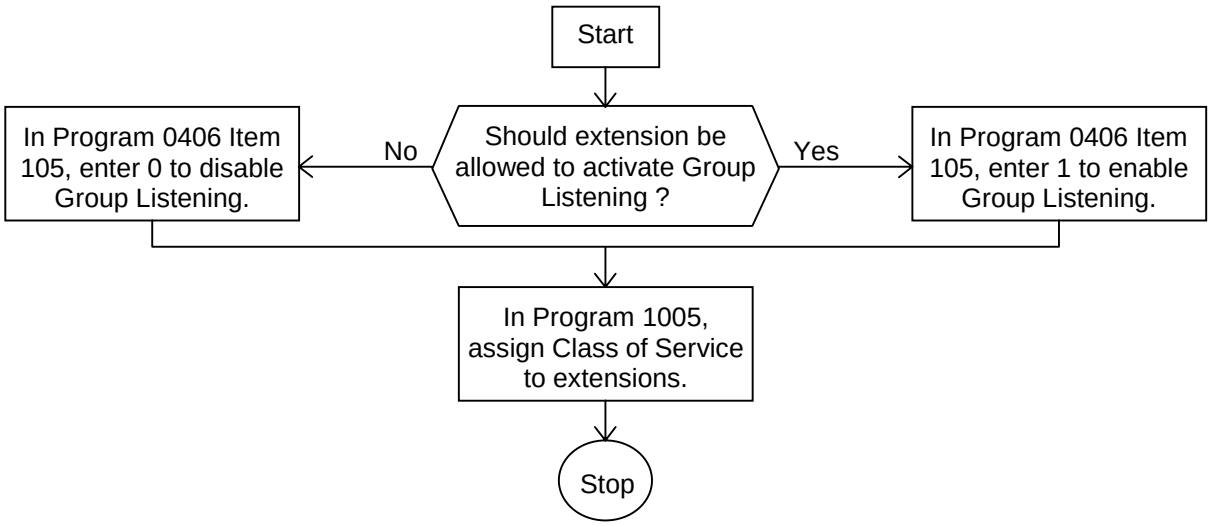
Options

None (digital key telephone)

Programming

> 0406 – Class of Service Options, Item_105 : Group listening
In an extension's Class of Service, enable (1) or disable (0) the extension's ability to initiate Group Listening.

> 1005 – Class of Service for Extensions
Assign a Class of Service (1 - 10) to extension**.**


Start
Should extension be allowed to activate Group Listening ?
No
Yes
In Program 0406 Item 105, enter 0 to disable Group Listening.
In Program 0406 Item 105, enter 1 to enable Group Listening.
In Program 1005, assign Class of Service to extensions.
Stop

Group Listening (Cont’d)

Related Features

None

Operation

<Key Telephone>

To activate Group Listening

1. Press SPK key during Handset Conversation
   --- Other party’s speech is heard through Speaker ---

To deactivate Group Listening

1. Press SPK key during Group listening is activated

<Single Line Telephone>

This function is not available for Single Line Telephone.

Group Step Calling

Description

After calling a busy Group Hunt Group member, an extension user can have Group Step Calling quickly call another member in the group. The caller does not have to hang up and place another Intercom call if first extension called is unavailable.

Conditions

This feature available for key telephone and single line telephone.

Default Setting

- An extension's Class of Service permits Group Step Calling.
- No Group Step Calling keys defined.
- Service Code of Step Call is dial 808.
- One digit service code of Step Call is no setting.

Options

None

Programming

> 0406 – COS Options, Item 21: Department Group Step Call
  In an extension's Class of Service, allow (1) or prevent (0) an extension's ability to use Group Step Calling.

> 0511 – Service Code Setup, Part A Item 60: Step Call
  Assign a service code of Step Call.

> 0512 – One Digit Service Code Setup, Service No. 1: Step call
  Assign a one digit service code of Step Call.

> 1005 – Class of Service for Extension
  Assign a Class of Service (1-10) to an extension.

> 1006 – Programming Function Keys
  Assign a function key Group Step Calling (code 1021).

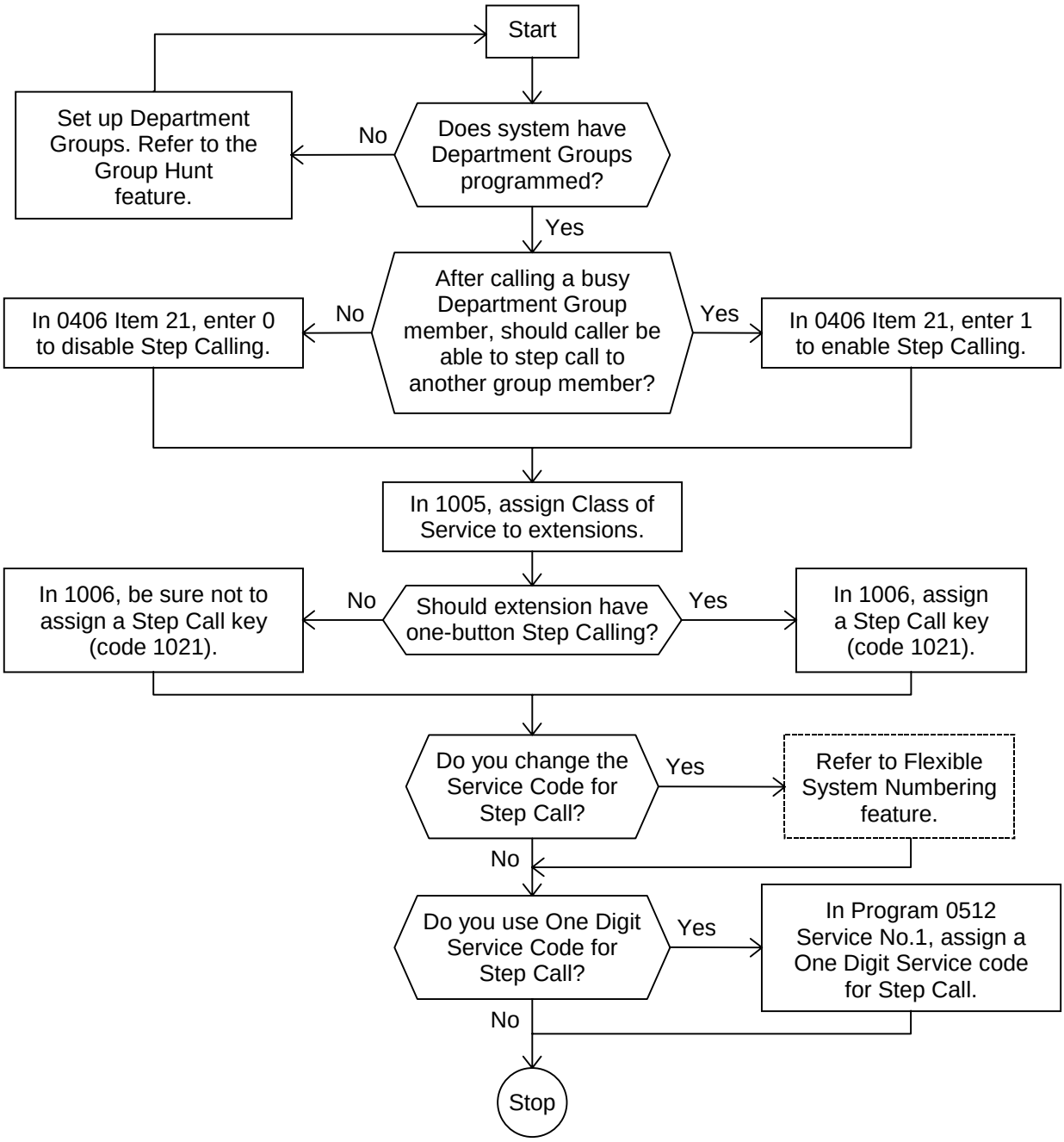
Related Features

Group Hunt

An extension user can call an idle extension within a preprogrammed Department Group by dialing the group's pilot number. Group Hunt also provides overflow routing for extensions within the group - which simulates Step Calling.

Group Step Calling (Cont’d)

Programming (Cont'd)


Start
Does system have Department Groups programmed?
No
Set up Department Groups. Refer to the Group Hunt feature.
Yes
After calling a busy Department Group member, should caller be able to step call to another group member?
No
In 0406 Item 21, enter 0 to disable Step Calling.
Yes
In 0406 Item 21, enter 1 to enable Step Calling.
In 1005, assign Class of Service to extensions.
Should extension have one-button Step Calling?
No
In 1006, be sure not to assign a Step Call key (code 1021).
Yes
In 1006, assign a Step Call key (code 1021).
Do you change the Service Code for Step Call?
Yes
Refer to Flexible System Numbering feature.
No
Do you use One Digit Service Code for Step Call?
Yes
In Program 0512 Service No.1, assign a One Digit Service code for Step Call.
No
Stop

Group Step Calling (Cont'd)

Operation

<Key Telephone>

To make a Step Call to an idle department member (if the member you call is busy):

You step through Extension Groups set in Program 1003.

1. Place call to busy department extension.
   Dial the extension's number, not the Department Group Pilot Number.
2. Dial 808( ).
   OR
   Press Step Call key (PGM 1006 or SC 851: 1021).
   OR
   Dial One Digit Service Code.
3. Repeat step 2 to call other Department Group members.

<Single Line Telephone>

To make a Step Call to an idle department member (if the member you call is busy):

You step through Extension Groups set in Program 1003.

1. Place call to busy department extension.
   Dial the extension's number, not the Department Group Pilot Number.
2. Dial 808( ).
   OR
   Dial One Digit Service Code.
3. Repeat step 2 to call other Department Group members.

Handsfree (Speaker & Microphone)

Description

Handsfree allows a keyset user to process calls using the speaker and microphone in the telephone (instead of the handset). Handsfree is a convenience for workers who don't have a free hand to pick up the handset. For example, a terminal operator could continue to enter data with both hands while talking on the phone.

The system provides four variations of Handsfree operation:

Handsfree ..... User can place and answer calls by pressing SPK instead of using the handset.

One Touch Trunk Access..... User can press a line or line appearance key without first lifting the handset or pressing SPK.

Intercom Talkback ..... User to respond to a voice-announced Intercom call by speaking toward the phone without lift the handset.

Monitor..... User can place a call without lifting the handset, but must lift the handset to speak.

Conditions

This feature available for Key Telephone with Handsfree circuit (See the table below).

Handsfree is only available on keysets with handsfree circuit. Keysets without handsfree circuit have Intercom talk back and Monitor circuit.

Model Name	*Function*
Previous Model	
DX2E-0T TEL	Intercom Talkback and Monitor only
DX2E-16T TEL	Intercom Talkback and Monitor only
DX2E-16TXH TEL	Handsfree is available.
DX2E-24TXH TEL	Handsfree is available.
DX2E-24TSXH TEL	Handsfree is available.
DX2E-32T TEL	Intercom Talkback and Monitor only
DX2E-32TXH TEL	Handsfree is available.
DX2E-16T-LC2 TEL	Intercom Talkback and Monitor only
DX2E-16TXH-LC2 TEL	Handsfree is available.
New Model	
DX2E-12BTH TEL	Handsfree is available.
DX2E-12BTXH TEL	Handsfree is available.
DX2E-24BTUXH TEL	Handsfree is available.
DX2E-24BTSXH TEL	Handsfree is available.

Default Setting

- One Touch Line Access enabled.

Handsfree (Speaker & Microphone) (Cont'd)

Options

None

Programming

> 0401 – System Options, Part A , Item 6: Pre-select/One-touch
Enable (1) or disable (0) One Touch Line access. If enabled, user can press a line or line appearance key without first lifting the handset.

Related Features

None

Operation

<Key Telephone>

To enable Handsfree Answer back for your incoming Intercom calls:

1. Press idle CL key.
2. Dial 821( ).
   (Confirmation tone is heard.)
3. Press SPK to hang up.
   This disable Forced Intercom Ringing.

To talk Handsfree:

1. Press SPK, CL key or line key.
2. Place call.
3. Speak toward phone when called party answers.

To change a handset call into a Handsfree call:

1. Press SPK.
2. Press SPK to hang up.
   Handsfree mode, when MIC LED is off.
   Monitor mode, when MIC LED is light on.
   Press MIC key, when you change the mode

To change a Handsfree call into a handset call:

1. Lift handset.

Headset Operation

Description

A keyset user can utilize a customer-provided headset in place of the handset. Like using Handsfree, using the handset frees up the user's hands for other work. However, Headset Operation provides privacy not available from Handsfree.

An extension in the headset mode has two options for when it appears busy to incoming callers. The headset extension can be:

- Busy to incoming callers when only one extension appearance is busy (i.e., Override prevented)

  OR

- Busy to incoming callers only when both extension appearances are busy (i.e., Override allowed)

Conditions

This feature available for key telephone.

Default Setting

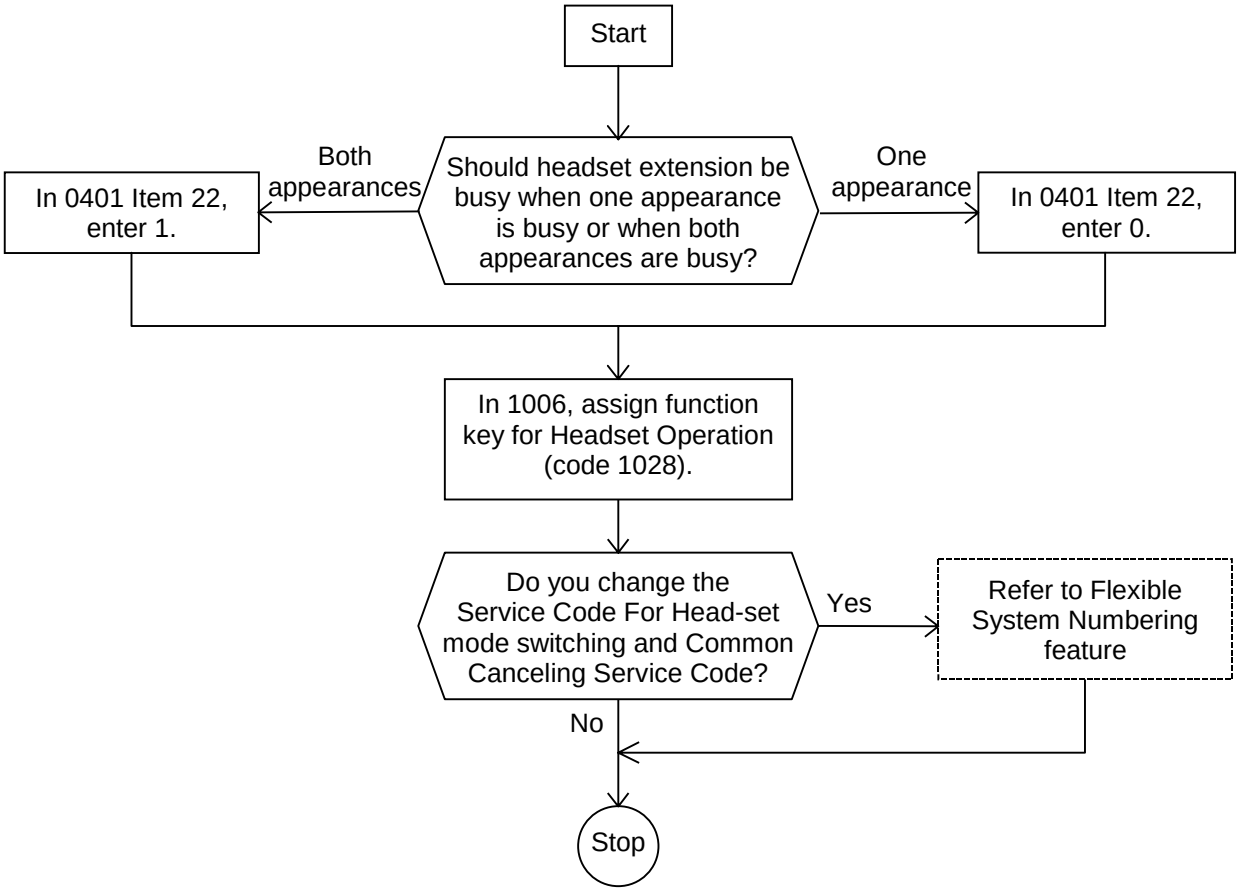
- Headset extension is busy to incoming callers when only one extension appearance is busy.
- No headset keys defined.
- Service Code of Head-set mode switching is dial 834.
- Service Code of Common canceling service code is dial 720.

Options

Headset. (Agreed headset type is Profile 1861-00, 1862-00 and 1863-00 made by GN Netcom. Connecting cable code number is 8800-01-01 and 8800-00-01.)

Headset Operation (Cont'd)

Programming (Cont'd)


Start
Should headset extension be busy when one appearance is busy or when both appearances are busy?
Both appearances
In 0401 Item 22, enter 1.
One appearance
In 0401 Item 22, enter 0.
In 1006, assign function key for Headset Operation (code 1028).
Do you change the Service Code For Head-set mode switching and Common Canceling Service Code?
Yes
Refer to Flexible System Numbering feature
No
Stop

Headset Operation (Cont'd)

Programming (Cont'd)

> 0401 – System Options, Part A,
Item 22: Headset mode judge of busy service setting
Set the conditions under which a headset extension is busy to incoming callers:
- The Headset extension is busy to incoming callers when only one extension appearance is busy (0)
OR
- Headset extension is busy to incoming callers only when both extension appearances are busy (1).

> 0511 – Service Code Setup, Part A Item 47: Head-set mode switching
Assign a service code of Head-set mode switching.

> 0514 – Service Code Setup, Part B Item 10: Common Canceling service code
Assign a service code of common Canceling service code.

> 1006 – Programming Function Keys
Assign a function key for Headset operation (code 1028).

Related Features

Handsfree (Speaker & Microphone)

While in the headset mode, do not use the Speakerphone for calls.

Operation

While in the headset mode, the hook switch is not functional.

To enable the headset mode:

1. Unplug the telephone handset.
2. Plug in the headset.
3. Press the Headset key (PGM 1006 or SC 851: 1028).
OR
Press idle CL key and dial 834( ).
(Confirmation tone is heard.)
You hear a confirmation beep.
The Headset key lights when you enable headset mode.

When in the headset mode:

- Press a line key to make a Trunk Line call.
OR
- Press SPK to get Intercom dial tone.
OR
- If on a call, press SPK to hang up.

Headset Operation (Cont'd)

Operation (Cont'd)

To disable the headset mode:

1. Unplug the headset.
2. Plug in the telephone handset.
3. Press the Headset key PGM 1006 or SC 851: 1028).

   OR

   Press idle CL key and dial 834( ).

   (Confirmation tone is heard.)

   The Headset key goes out when you disable headset mode.

To cancel headset mode:

1. Press idle CL key.
2. Dial 720( ). (Common Canceling Service Code)
3. Press SPK to hang up.

   When you cancel of Headset Mode by dial 720, these features are cancelled at same time, DND, Call Forward, Repeat Dial, Message Waiting, Alarm Clock and Text Message.

Hold

Description

Hold lets an extension user put a temporary waiting state. The caller on Hold hears silence or Music on Hold, not conversation in the extension user's work area. While the call waits on Hold, the extension user may process calls or use a system feature. Calls left on Hold too long recall the extension that placed them on Hold.

There are five types of Hold:

- **Normal Hold**

An outside call a user places on Hold flashes the line key (if programmed) at all other keysets. Any keyset user with the flashing line key can pick up the call.

- **Exclusive Hold**

When a user places a call on Exclusive Hold, only that user can pick up the call from Hold. The Trunk Line appears busy to all other keysets that have a key for the Trunk Line. Exclusive hold is important if a user doesn't want a co-worker picking up their call on Hold.

- **Group Hold**

If a user places a call on Group Hold, another user in the Department Group can dial a code to pick up the call. These let members of a department easily pick up each other's calls.

- **Intercom Hold**

A user can place an Intercom call on Hold. The Intercom call on Hold does not indicate at any other extension.

- **On Hook Holding for SLT**

A single line telephone user can on hook when holding. On hook holing possible to get dialing Service Code after hooking.

For Normal Hold, Exclusive Hold and Group Hold, the user can re-answer the hold line by simply pressing TRFR key.

Conditions

This feature available key telephone and single line telephone.

Hold (Cont'd)

Default Setting

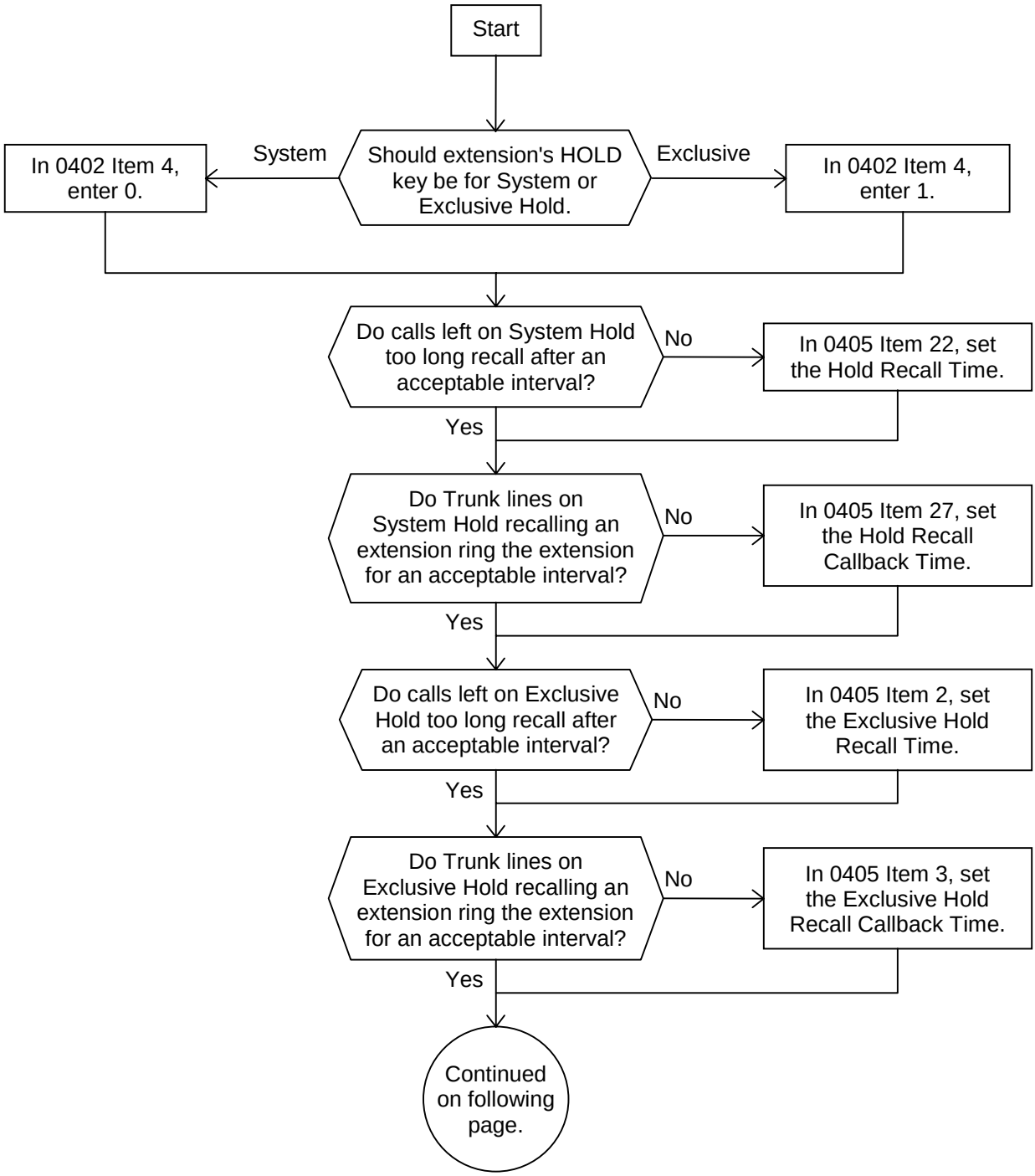
- The HOLD key activates System Hold.
- Exclusive Hold Recall Time is 90 seconds.
- Exclusive Hold Recall Callback Time is 30 seconds.
- Hold Recall Time is 90 seconds.
- Hold Recall Callback Time is 30 seconds.
- Forced Release of Held Calls is disabled.
- Group Hold is enabled (all extensions are in-group 1).
- No Exclusive hold keys assigned.
- Service Code of group hold is dial 832.
- Service Code of pick up group hold is dial 862.
- Service Code of Enabled on hook when holding (SLT) is dial 849.
- Service Code of Answer on hook when holding (SLT) is dial 859.
- All Key Telephone users can re-answer the last hold line by pressing TRFR key.

Options

None

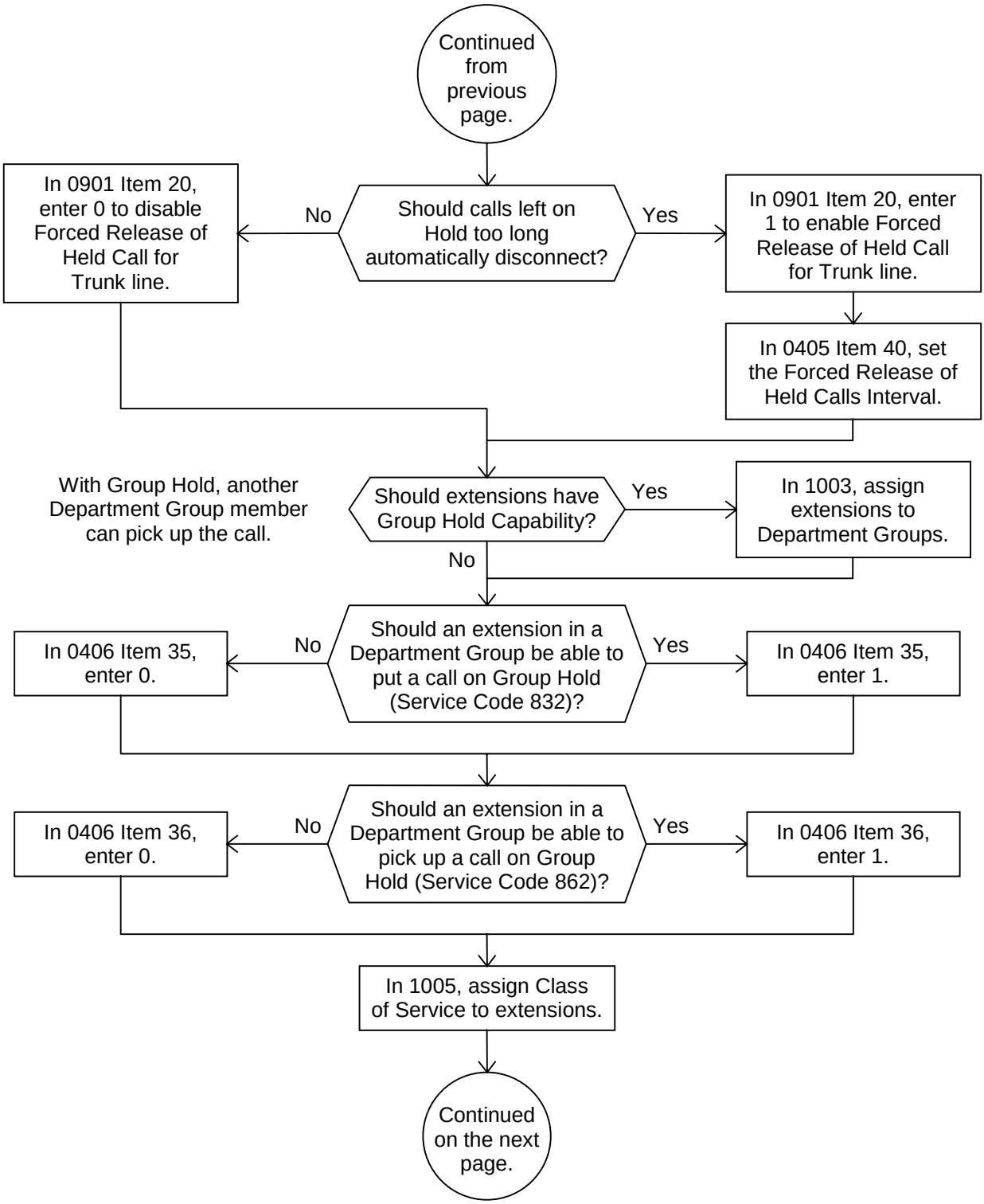
Hold (Cont'd)

Programming


Start
Should extension's HOLD key be for System or Exclusive Hold.
System
Exclusive
In 0402 Item 4, enter 0.
In 0402 Item 4, enter 1.
Do calls left on System Hold too long recall after an acceptable interval?
No
In 0405 Item 22, set the Hold Recall Time.
Yes
Do Trunk lines on System Hold recalling an extension ring the extension for an acceptable interval?
No
In 0405 Item 27, set the Hold Recall Callback Time.
Yes
Do calls left on Exclusive Hold too long recall after an acceptable interval?
No
In 0405 Item 2, set the Exclusive Hold Recall Time.
Yes
Do Trunk lines on Exclusive Hold recalling an extension ring the extension for an acceptable interval?
No
In 0405 Item 3, set the Exclusive Hold Recall Callback Time.
Yes
Continued on following page.

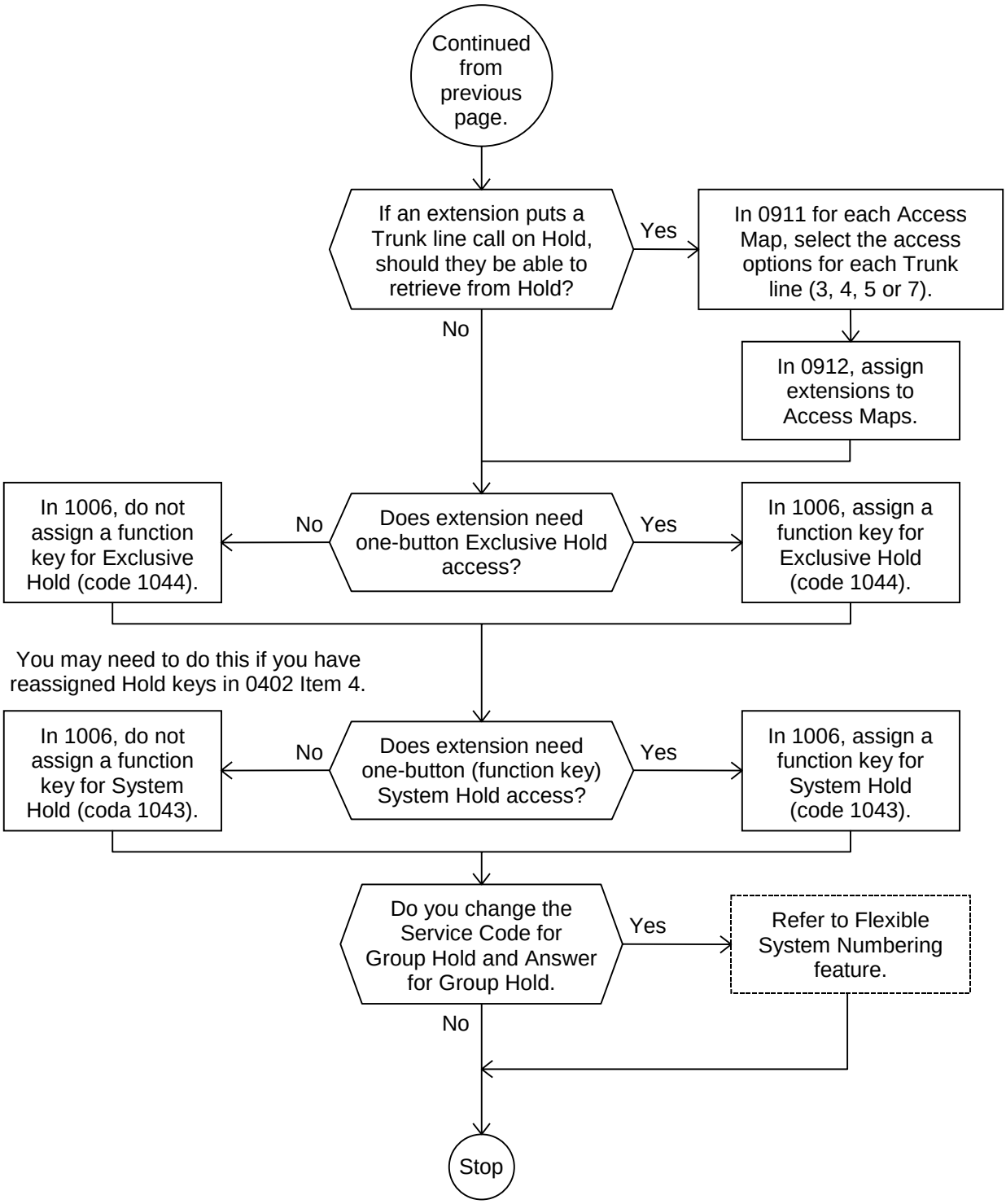
Hold (Cont'd)

Programming (Cont'd)


Continued from previous page.
Should calls left on Hold too long automatically disconnect?
No
Yes
In 0901 Item 20, enter 0 to disable Forced Release of Held Call for Trunk line.
In 0901 Item 20, enter 1 to enable Forced Release of Held Call for Trunk line.
In 0405 Item 40, set the Forced Release of Held Calls Interval.
With Group Hold, another Department Group member can pick up the call.
Should extensions have Group Hold Capability?
Yes
No
In 1003, assign extensions to Department Groups.
Should an extension in a Department Group be able to put a call on Group Hold (Service Code 832)?
No
Yes
In 0406 Item 35, enter 0.
In 0406 Item 35, enter 1.
Should an extension in a Department Group be able to pick up a call on Group Hold (Service Code 862)?
No
Yes
In 0406 Item 36, enter 0.
In 0406 Item 36, enter 1.
In 1005, assign Class of Service to extensions.
Continued on the next page.

Hold (Cont'd)

Programming (Cont'd)


Continued from previous page.
If an extension puts a Trunk line call on Hold, should they be able to retrieve from Hold?
Yes
In 0911 for each Access Map, select the access options for each Trunk line (3, 4, 5 or 7).
No
In 0912, assign extensions to Access Maps.
In 1006, do not assign a function key for Exclusive Hold (code 1044).
No
Does extension need one-button Exclusive Hold access?
Yes
In 1006, assign a function key for Exclusive Hold (code 1044).
You may need to do this if you have reassigned Hold keys in 0402 Item 4.
In 1006, do not assign a function key for System Hold (coda 1043).
No
Does extension need one-button (function key) System Hold access?
Yes
In 1006, assign a function key for System Hold (code 1043).
Do you change the Service Code for Group Hold and Answer for Group Hold.
Yes
Refer to Flexible System Numbering feature.
No
Stop

Hold (Cont'd)

Programming (Cont'd)

> 0402 – System Options, Part B, Item 4: Hold key operating mode
Set the function of the extension's HOLD key: System (0) or Exclusive (1) Hold.

> 0405 – System Timers, Item 2: Exclusive Hold Recall Time
Set the Exclusive Hold Recall Time (0-64800 seconds). A call on Exclusive Hold recalls the extension that placed it on Hold after this interval.

> 0405 – System Timers, Item 3: Exclusive Hold Recall Callback Time
Set the Hold Recall Time (0-64800 seconds). A Trunk Line recalling from Hold rings an extension for this interval.

> 0405 – System Timers, Item 22: Normal Hold Recall Time
Set the Hold Recall Time (0-64800 seconds). A call on Hold recalls the extension that placed it on Hold after this interval.

> 0405 – System Timers, Item 27: Normal Hold Callback Time
Set the Hold Recall Time (0-64800 seconds). A Trunk Line recalling from Hold rings an extension for this interval.

> 0405 – System Timers, Item 40: Forced Release of Long Hold Condition Time
Set the Forced Release of Held Calls interval (0-64800 seconds). If enabled in Program 0901 (Item 20), the system disconnects a call if on Hold longer than this interval.

> 0406 – COS Options, Item 35: Group Hold Initiate
In an extension's Class of Service, enable (1) or disable (0) an extension's ability to initiate Group Hold (Service Code 832).

> 0406 – COS Options, Item 36: Group Hold Answer
In an extension's Class of Service, enable (1) or disable (0) an extension's ability to pick up a call placed on Group Hold. (Service Code 832)

> 0511 – Service Code Setup, Part A Item 57: Group hold Assign a service code of Group hold.

> 0511 – Service Code Setup, Part A Item 58: Answer for group hold
Assign a service code of answer for group hold.

> 0511 – Service Code Setup, Part A
Item 96: Enabled on hook when holding (SLT)
Assign a service code of On Hook Holding for SLT.

Hold (Cont'd)

Programming (Cont'd)

> 0511 – Service Code Setup, Part A
Item 97: Answer on hook when holding (SLT)
Assign a service code of Answer for On Hook Holding for SLT.

> 0901 – Basic Trunk Line Port Setup, Part A
Item 20: Long-time Holding Forced Disconnection
Set up the Trunk Line Access Maps (1-16). This sets the access options for Trunk lines on Hold.

> 0911 – Trunk Line Access Map Setup
Set up the Trunk Line Access Maps (1-16). This sets the access options for trunks on Hold.

> 0912 – Extension Access Map Assignment
Assign Trunk Line Access Maps (1-16) to extensions.

> 1003 – Extension (Department) Groups
Assign extensions to Department Groups (1-8)

> 1005 – Class of Service for Extension
Assign a Class of Service (1-10) to an extension.

> 1006 – Programming Function Keys
Assign a function key for Exclusive Hold (code 1044). If an extension has its fixed Hold key reassigned (in Program 0402 Item 4), assign a function key for System Hold (code 1043).

Related Features

Music on Hold

Callers on Hold hear Music on Hold, if programmed.

Programmable Function Key

An extension can have function keys for System Hold and Exclusive Hold.

Hold (Cont'd)

Operation

Normal Hold

<Key Telephone>

To place an outside call on System Hold:

1. Press HOLD

A line key flashes slowly while on Hold; flashes fast when recalling.

To pick up an outside call on System Hold:

1. Press flashing line key.

OR

1. Press TRFR key to re-answer.

<Single Line Telephone>

This feature only available for key telephone.

Exclusive Hold

<Key Telephone>

To place an outside call on Exclusive Hold:

1. Press Exclusive Hold key (PGM 1006 or SC 851: 1044).

A line key flashes slowly while on Hold, flashes fast when recalling.

To pick up an outside call on Exclusive Hold:

1. Press flashing line key.

OR

1. Press TRFR key to re-answer.

<Single Line Telephone>

To place an outside call on System Hold:

1. Hook/Flash.

To pick up an outside call an System Hold:

1. Hook/Flash.

Hold (Cont'd)

Operation (Cont'd)

Group Hold

<Key Telephone>

To place a call on Hold so anyone in your extension group can pick it up:

1. Press HOLD.
2. Dial 832( ).
3. Press SPK to hang up.

To pick up a call on Group Hold:

1. Press idle CL key.
2. Dial 862( ).

OR

1. Press TRFR key to re-answer.

<Single Line Telephone>

To place a call on Hold so anyone in your extension group can pick it up:

1. Hook/Flash.
2. Dial 832( ).
3. On hook.

To pick up a call on Group Hold:

1. Off hook.
2. Dial 862( ).

Intercom Hold

<Key Telephone>

To place an Intercom call on Intercom Hold:

1. Press HOLD.
2. Press SPK to hang up.

To pick up an Intercom call on Intercom Hold:

1. Press SPK.
2. Press flashing CL key.

<Single Line Telephone>

To place an Intercom call on Intercom Hold:

1. Hook/Flash.

To pick up an Intercom call on Intercom Hold:

1. Hook/Flash.

Hold (Cont'd)

Operation (Cont'd)

On Hook Holding for SLT

<Single Line Telephone>

To on hook when holding:

1. When you holding.
2. Dial 849( ).
3. On hook.

To answer on hook holding:

1. Off hook.
2. Dial 859( ).

Hot Line

Description

With a Hot Line, a user can call another extension or outside party by just lifting the handset. The call automatically goes through -- there is no need for the user to dial digits or press additional keys. Hot Line is generally used for between internal frequent parties to talk with, or for the external calls to information desk or the security center, and so on.

After the Hot Line user lifts the handset, Automatic Extension Call/Outside call occurs after a programmable interval. Depending on the setting of this interval, the extension user may be able to place other calls before the Automatic Extension Call/Outside call goes through.

Conditions

This feature available for key telephone and single line telephone.

(A) Hot Line has no effect on an extension's current (active) call.

(B) The Hot Line user must lift the handset for Automatic Extension Call /Automatic outside call to work.

(C) External Hot Line automatic call to system programmed common abbreviated dial number.

Default Setting

- The Hot Line Timer is 5 seconds.
- Automatic Extension Call disabled in an extension's Class of Service.
- No Hot Lines programmed.

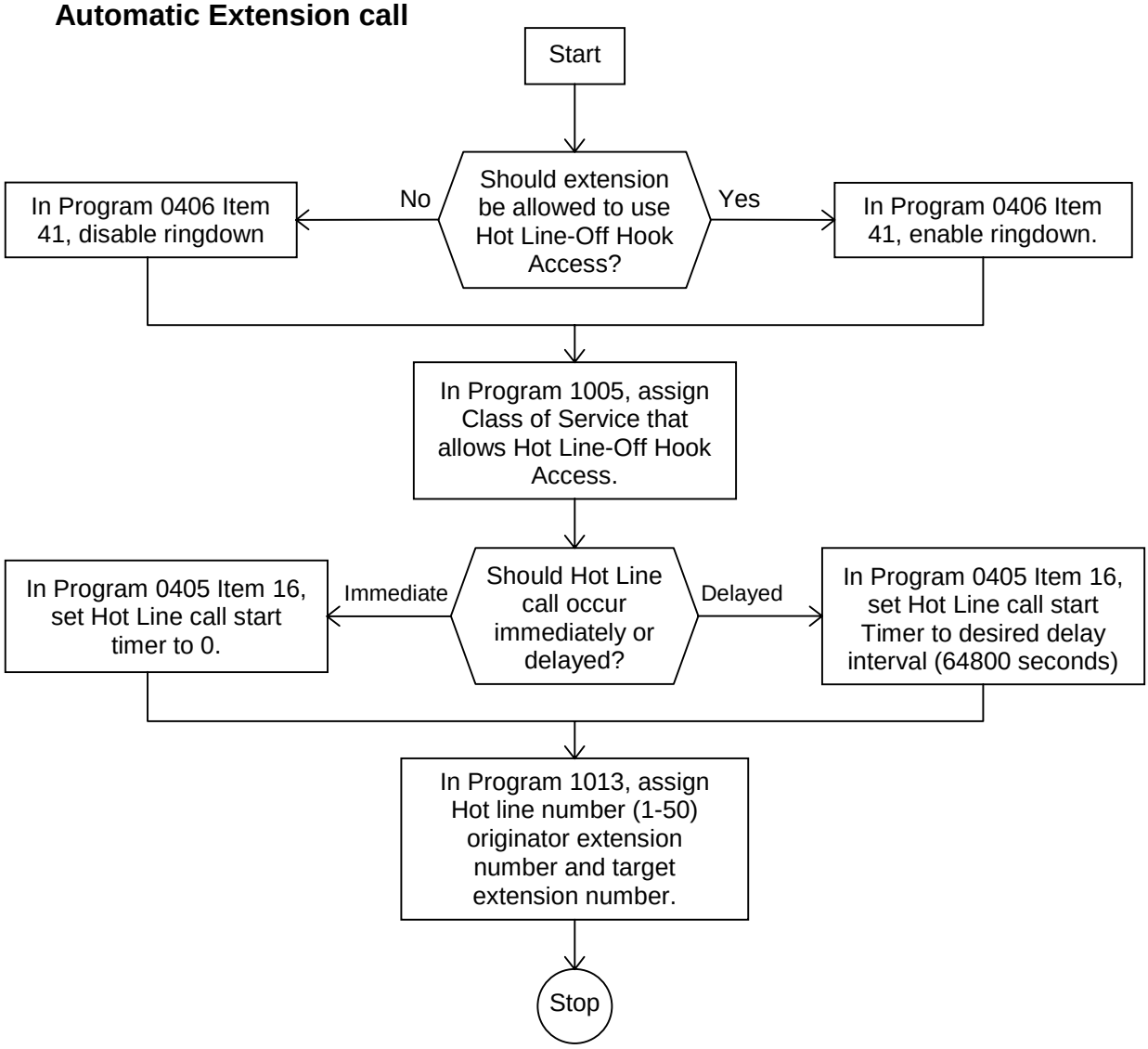
Options

None

Hot Line (Cont'd)

Programming

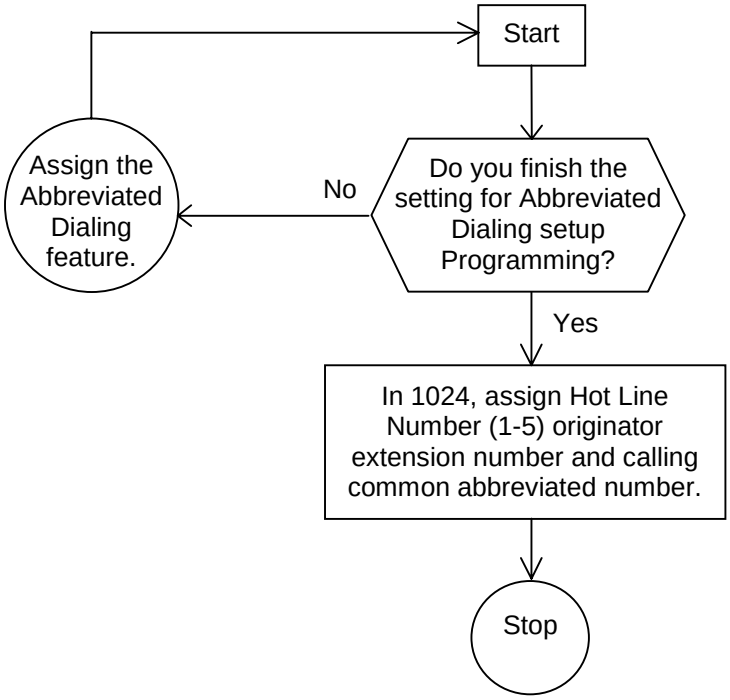
Automatic Extension call


Start
Should extension be allowed to use Hot Line-Off Hook Access?
No
Yes
In Program 0406 Item 41, disable ringdown
In Program 0406 Item 41, enable ringdown.
In Program 1005, assign Class of Service that allows Hot Line-Off Hook Access.
Should Hot Line call occur immediately or delayed?
Immediate
Delayed
In Program 0405 Item 16, set Hot Line call start timer to 0.
In Program 0405 Item 16, set Hot Line call start Timer to desired delay interval (64800 seconds)
In Program 1013, assign Hot line number (1-50) originator extension number and target extension number.
Stop

Hot Line (Cont'd)

Programming (Cont’d)

Automatic outside call


Start
Assign the Abbreviated Dialing feature.
No
Do you finish the setting for Abbreviated Dialing setup Programming?
Yes
In 1024, assign Hot Line Number (1-5) originator extension number and calling common abbreviated number.
Stop

> 0405 – System Timers, Item 16: Hot Line Call Start Timer
  After the user lifts the handset, the extension automatically calls the Automatic Extension Call destination after this interval (0-64800 seconds).

> 0406 – COS Options, Item 41: Intercom Hot Line
  In an extension's Class of Service, enable (1) or disable (0) Automatic Extension Call. If disabled in Class of Service, the setting in Program 1013 below has no effect.

> 1005 – Class of Service for Extension
  Assign a Class of Service (1-15) to an extension.

> 1013 – Hot Line Assignments
  Program the (Hot Line) source and destination (target) extension numbers. The allows up to source/target pairs.

> 1024 – External Hot Line
  Set the calling common abbreviated number and originating extension number, which is use External Hot Line. The system can be set up to five External Hot Line originator. External Hot Line originator can be call to setting outside caller by just lift the handset.

Hot Line (Cont'd)

Related Features

Call Forward

Hot Line follows Call Forwarding. For example, the Automatic Extension Call destination can forward their calls. When the Hot Line user lifts the handset, they can Camp On to the destination, leave a Callback or activate Off Hook Signaling.

Camp On, Intercom Off-Hook Signaling

If the Hot Line user hears busy tone when they lift the handset, they can Camp On to the destination, leave a Callback or activate off-hook signaling.

Do Not Disturb

The Automatic Extension Call destination user can activate Do Not Disturb. When the Hot Line user lifts the handset, they hear DND. If the destination extension has Forced Intercom Ringing enabled, the call will ring.

Operation

<Key Telephone>

To place a call if your extension has Automatic Extension programmed:

1. Lift handset.

   If you want to place a Trunk Line follows call, press a line key before lifting the handset. Depending on the setting of your Automatic Extension Call timer, you may be able to dial an Intercom call before your Automatic Extension Call goes through.

   If the destination has Handsfree Answer-back enabled, your call will voice announce.

   If the destination has Forced Intercom Ringing enabled, your call will ring

To place a call if your extension has Automatic outside Call programmed:

1. Lift handset.

To bypass Hot Line (if enabled for your extension):

1. Do not lift handset.
2. Press CL.
3. Place Intercom or Trunk Line call.

To answer a call if you are another extension's Automatic Extension Call destination:

1. Speak toward phone to answer incoming voice-announcement.
2. Lift handset to answer ringing Intercom call.

Hot Line (Cont'd)

Operation (Cont’d)

<Single Line Telephone>

To place a call if your extension has Automatic Extension programmed:

1. Lift handset.

   If you want to place a Trunk Line follows call, dial Trunk line access code within hot line timer. Depending on the setting of your Hot Line timer, you may be able to dial an Intercom call before your Hot Line Call goes through.

To place a call if your extension has Automatic outside Call programmed:

1. Lift handset.

   If you want to place a Trunk Line follows call, dial Trunk line access code within hot line timer. If you want to intercom call, dial extension number within hot line timer.

To bypass Hot Line (if enabled for your extension):

This feature only available for key telephone.

To answer a call if you are another extension's Hot Line Call destination:

1. Off hook.

Incoming Queue Message (VAU)

Description

1) For an unanswered normal incoming call, VAU will send a Message if no telephone answers within the pre-programmed time. It is also possible that the Message can be sent manually by VAU for an unanswered normal incoming call.
2) For a DDI incoming call which has been in waiting state because of ALL BUSY in station group address, VAU will send a message if there is no idle telephone occurred within the pre-programmed time.

It is possible to switch the Incoming Queue Message (VAU) from the 1st message to the 2nd messages (2 types of messages).

A message used for Incoming Queue Message (VAU) is recorded to VAU message (1 - 16). Recording, playback, and elimination of a message is done by using Service code 716(Command 0514 Item_6).

A sending interval of the VAU message follows a time setting of Command : 0414 Timer_4.

If the Fixed Message is prohibited by the Command 0401 Item_31, VAU does not send the Fixed Message.

If the pre-programmed time (Command 2213/2214 : 2nd message sending time) has passed after sending 2nd message, the Queue Message process will finish and the external line will be cut.

Conditions

- Incoming Queue Message (VAU) will be sent in the following cases -

Case 1) When Normal trunk line (Command 0901 Item_14...17 = 0) receives an external incoming call

Case 2) When DDI trunk line (Command 0901 Item_14...17 = 3) receives a DDI call which be transferred to a Incoming Ring Group by Command 1809,1814,1815.

Incoming Queue Message (VAU) will be sent automatically by Programmed Command 2213. Also, the Incoming Queue Message (VAU) will be sent by pressing a flashing line key (i.e., receiving an incoming call) after pressing the Incoming Queue Message (VAU) key (code 1082). Incoming Queue Message (VAU) key is effective for the pre-programmed time (Command : 0405 Timer_15) after pressing the key.

If the pre-programmed time (Command : 0405 Timer_43) has passed after sending Incoming Queue Message (VAU), the Queue Message process will finish and the external line will be cut.

If the pre-programmed time (Command : 0405 Timer_62) has passed after received an incoming call, the Queue Message process will finish and this queuing call will be transferred by Command 0919.

Incoming Queue Message (VAU) (Cont'd)

Conditions (Cont'd)

Case 3) When DDI trunk line (Command 0901 Item_14...17 = 3) receives a station group DDI call in All busy

Incoming Queue Message (VAU) will be automatically sent by the Command 2214.

If there will be one idle station in the accessed Station Group during the Incoming Queue Message (VAU) process, the Queue Message process will finish.

If the pre-programmed time (Command : 0414 Timer_9) has passed after received an incoming call, the Queue Message process will finish and this queuing call will be transferred by Command 1809, 1810 ,1814 and 1815 respectively.

Case 4) When DUD/DISA trunk line (Command 0901 Item_14...17 = 1 or 2) receives a station group address in All busy.

Incoming Queue Message (VAU) will be automatically sent by the Command 2214.

If there will be one idle station in the accessed Station Group during the Incoming Queue Message (VAU) process, the Queue Message process will finish.

If the pre-programmed time (Command : 0405 Timer_35) has passed after received an incoming call, the Queue Message process will finish and this queuing call will be transferred by Command 1802 and 1803 respectively.

Case 5) When DIL trunk line (Command 0901 Item_14...17 = 4) receives a station group address in All busy.

Incoming Queue Message (VAU) will be automatically sent by the Command 2214.

If there will be one idle station in the accessed Station Group during the Incoming Queue Message (VAU) process, the Queue Message process will finish.

If the pre-programmed time (Command : 0405 Timer_62) has passed after received an incoming call, the Queue Message process will finish and this queuing call will be transferred by Command 0919.

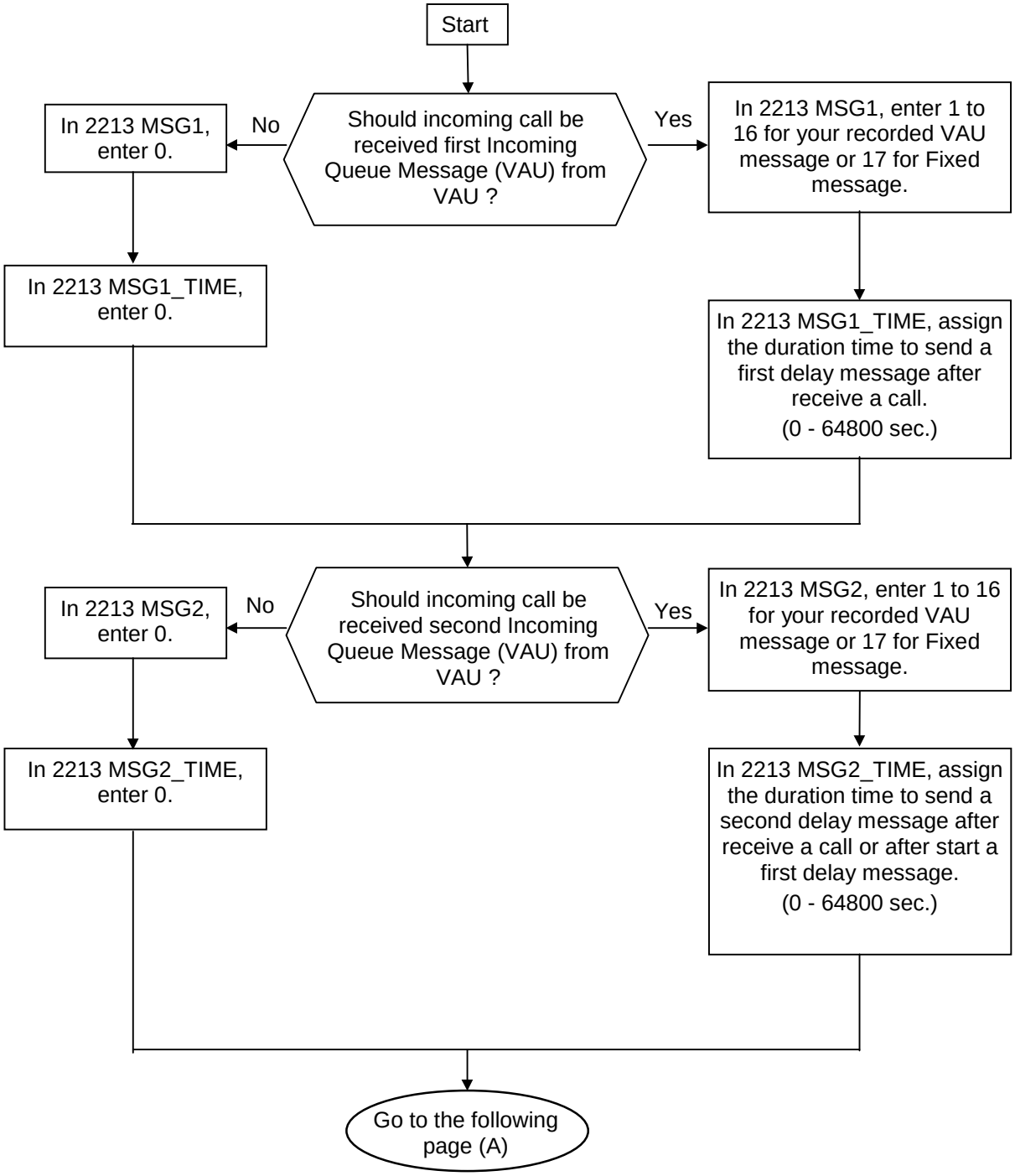
Default Setting

- This feature is not assigned.
- Fixed Waiting Message is assigned as 1st and 2nd Waiting Message.

Incoming Queue Message (VAU) (Cont'd)

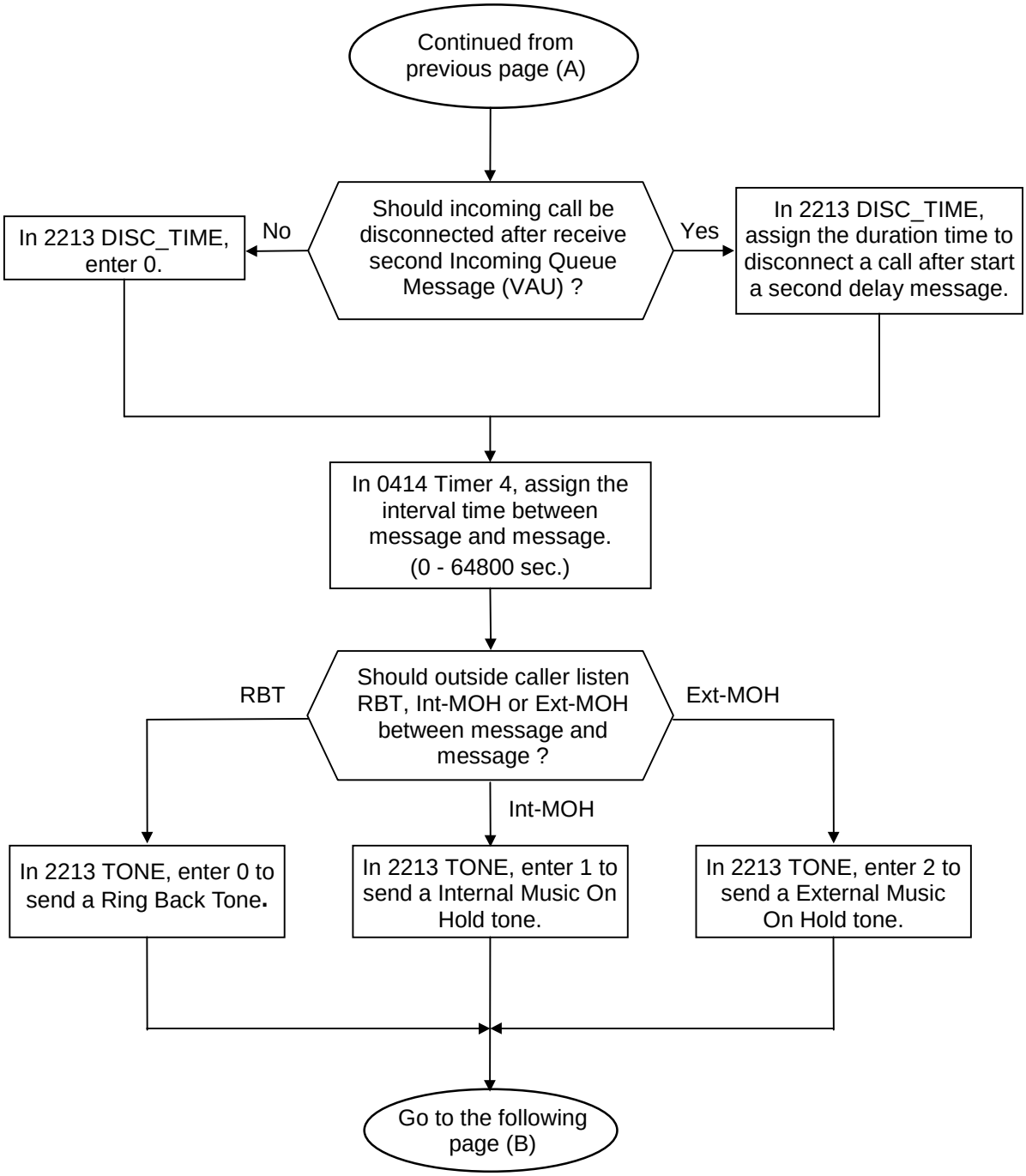
Programming

For Case 1) and 2)


Start
Should incoming call be received first Incoming Queue Message (VAU) from VAU ?
No
In 2213 MSG1, enter 0.
Yes
In 2213 MSG1, enter 1 to 16 for your recorded VAU message or 17 for Fixed message.
In 2213 MSG1_TIME, enter 0.
In 2213 MSG1_TIME, assign the duration time to send a first delay message after receive a call.
(0 - 64800 sec.)
Should incoming call be received second Incoming Queue Message (VAU) from VAU ?
No
In 2213 MSG2, enter 0.
Yes
In 2213 MSG2, enter 1 to 16 for your recorded VAU message or 17 for Fixed message.
In 2213 MSG2_TIME, enter 0.
In 2213 MSG2_TIME, assign the duration time to send a second delay message after receive a call or after start a first delay message.
(0 - 64800 sec.)
Go to the following page (A)

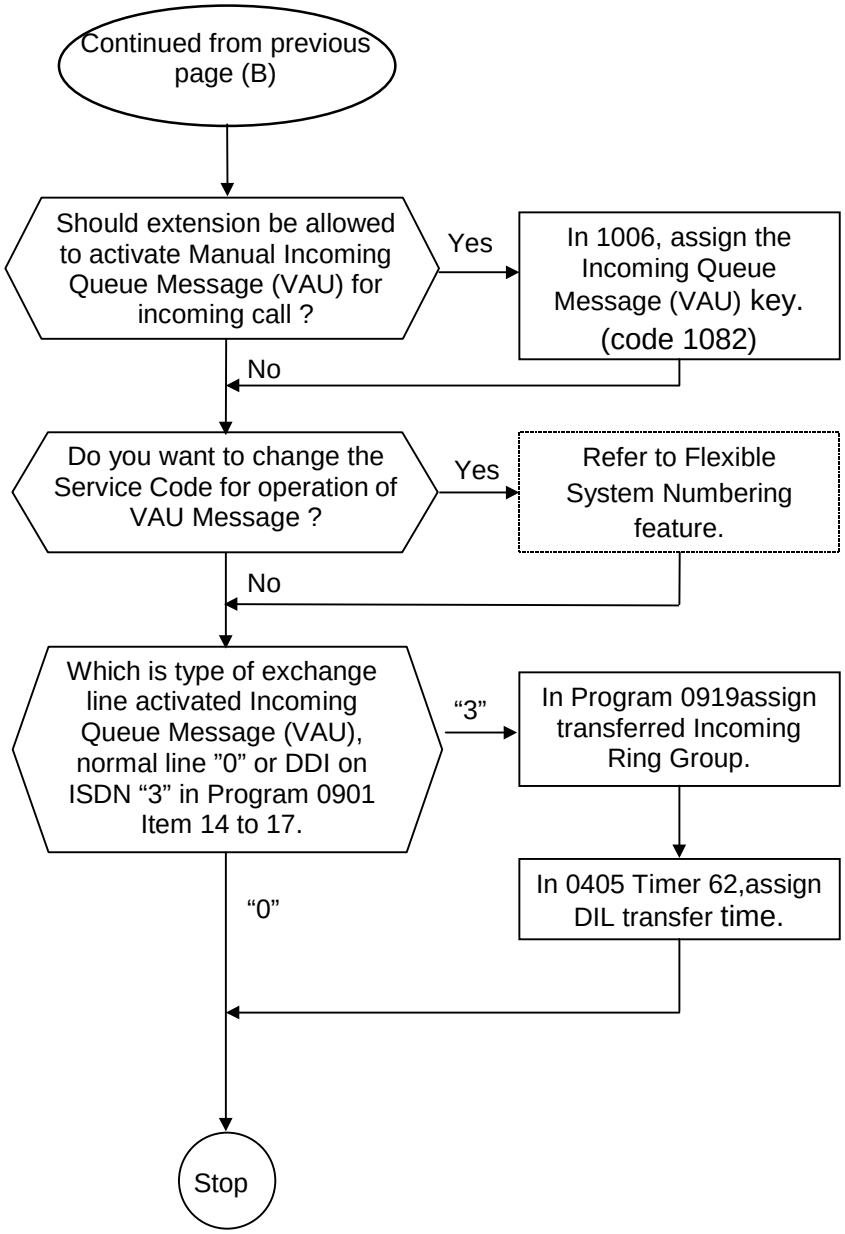
Incoming Queue Message (VAU) (Cont'd)

Programming (Cont'd)


Continued from previous page (A)
Should incoming call be disconnected after receive second Incoming Queue Message (VAU) ?
No
In 2213 DISC_TIME, enter 0.
Yes
In 2213 DISC_TIME, assign the duration time to disconnect a call after start a second delay message.
In 0414 Timer 4, assign the interval time between message and message. (0 - 64800 sec.)
Should outside caller listen RBT, Int-MOH or Ext-MOH between message and message ?
RBT
Int-MOH
Ext-MOH
In 2213 TONE, enter 0 to send a Ring Back Tone.
In 2213 TONE, enter 1 to send a Internal Music On Hold tone.
In 2213 TONE, enter 2 to send a External Music On Hold tone.
Go to the following page (B)

Incoming Queue Message (VAU) (Cont'd)

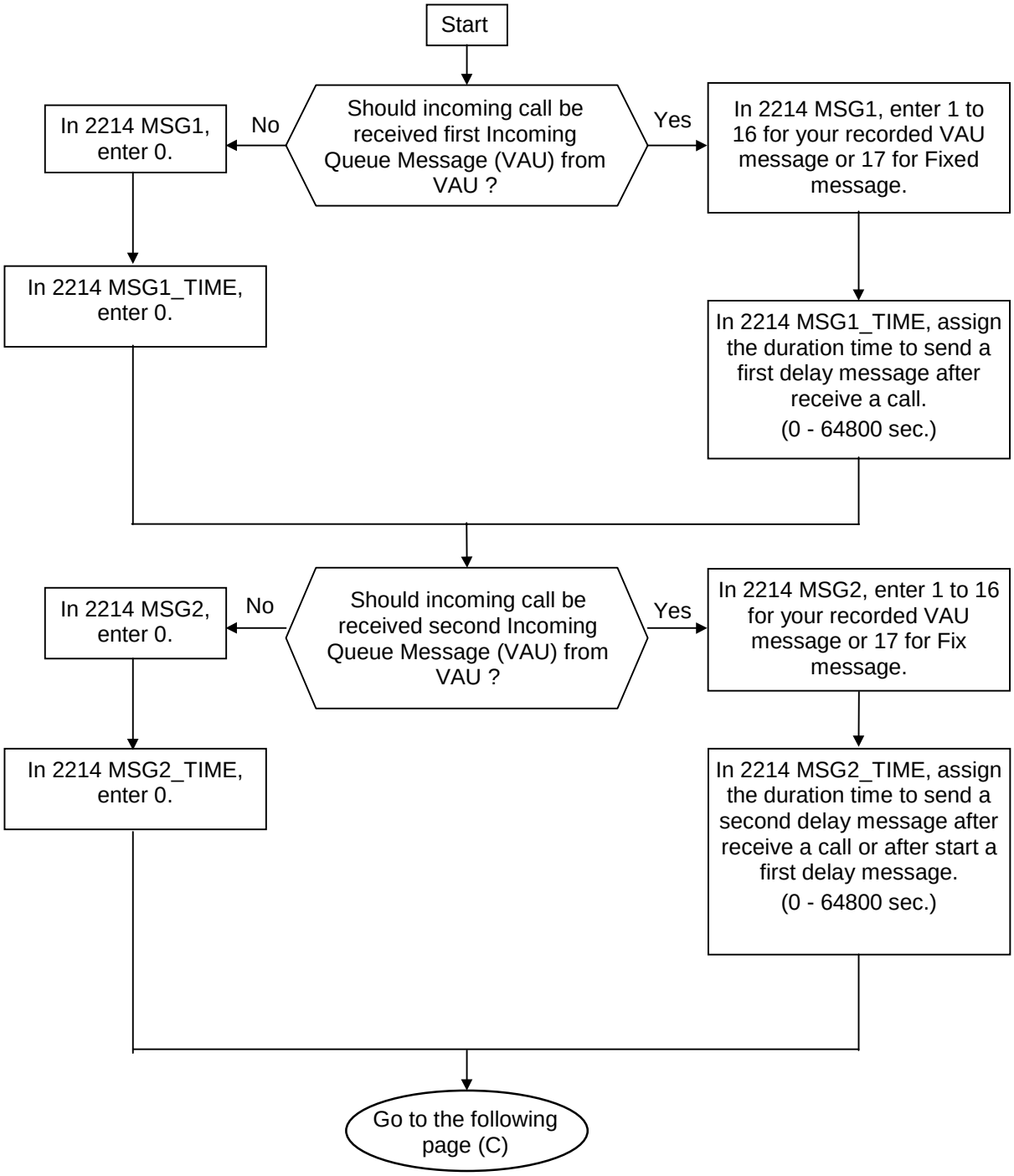
Programming (Cont'd)


Continued from previous page (B)
Should extension be allowed to activate Manual Incoming Queue Message (VAU) for incoming call ?
Yes
In 1006, assign the Incoming Queue Message (VAU) key. (code 1082)
No
Do you want to change the Service Code for operation of VAU Message ?
Yes
Refer to Flexible System Numbering feature.
No
Which is type of exchange line activated Incoming Queue Message (VAU), normal line "0" or DDI on ISDN "3" in Program 0901 Item 14 to 17.
"3"
In Program 0919assign transferred Incoming Ring Group.
In 0405 Timer 62,assign DIL transfer time.
"0"
Stop

Incoming Queue Message (VAU) (Cont'd)

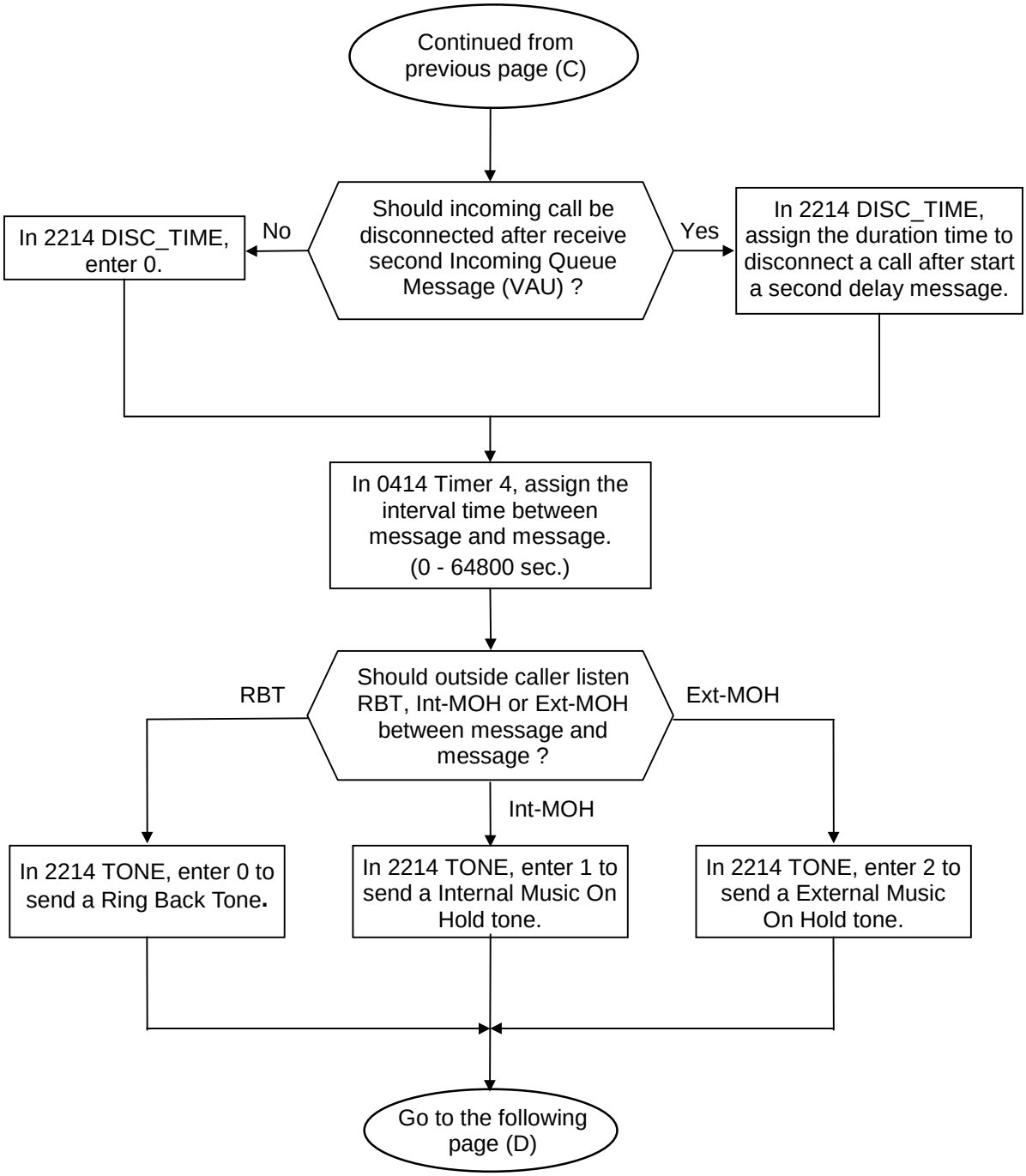
Programming (Cont'd)

For Case 3), 4) and 5)


Start
Should incoming call be received first Incoming Queue Message (VAU) from VAU ?
No
Yes
In 2214 MSG1, enter 0.
In 2214 MSG1, enter 1 to 16 for your recorded VAU message or 17 for Fixed message.
In 2214 MSG1_TIME, enter 0.
In 2214 MSG1_TIME, assign the duration time to send a first delay message after receive a call.
(0 - 64800 sec.)
Should incoming call be received second Incoming Queue Message (VAU) from VAU ?
No
Yes
In 2214 MSG2, enter 0.
In 2214 MSG2, enter 1 to 16 for your recorded VAU message or 17 for Fix message.
In 2214 MSG2_TIME, enter 0.
In 2214 MSG2_TIME, assign the duration time to send a second delay message after receive a call or after start a first delay message.
(0 - 64800 sec.)
Go to the following page (C)

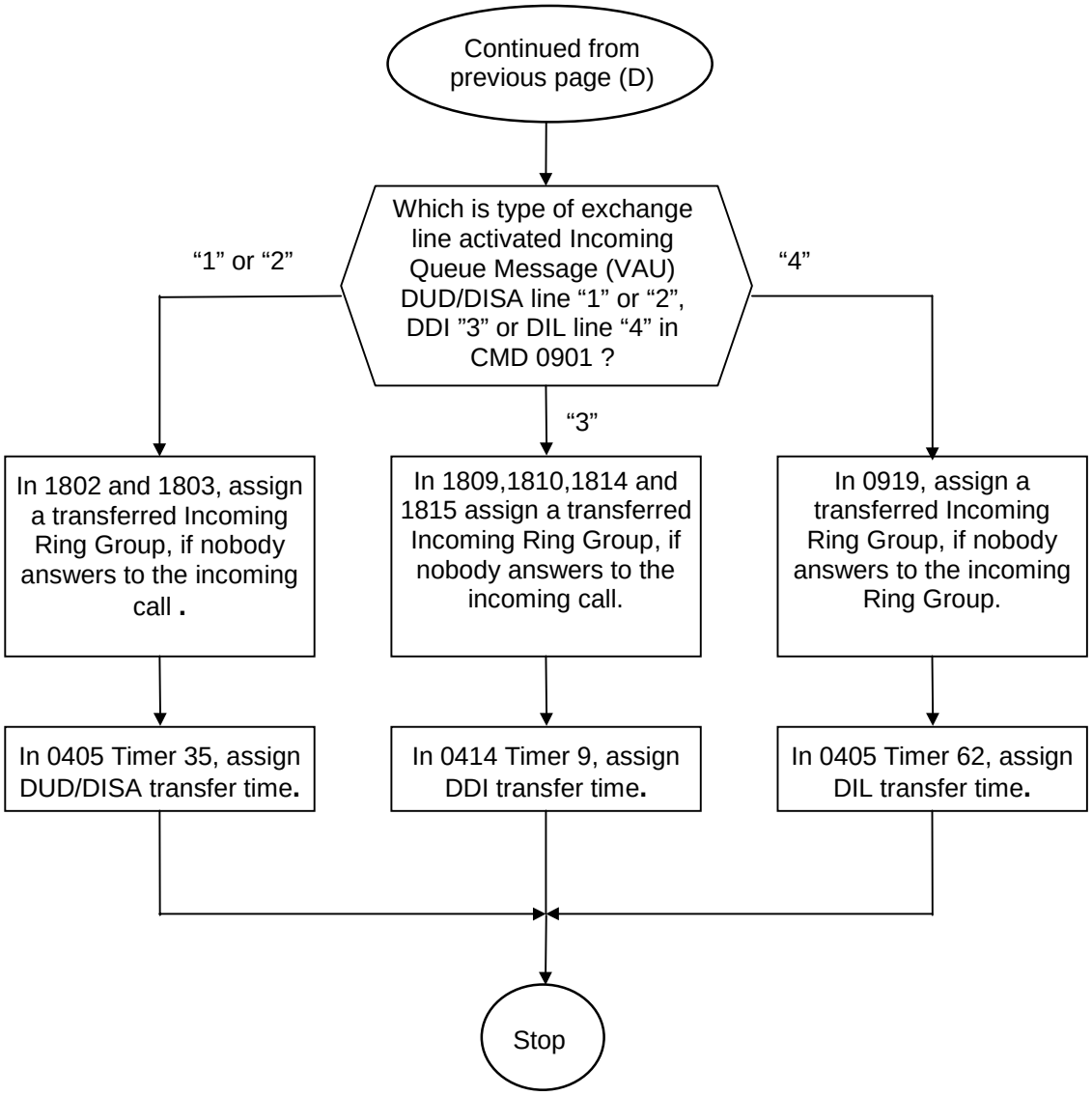
Incoming Queue Message (VAU) (Cont'd)

Programming (Cont'd)


Continued from previous page (C)
Should incoming call be disconnected after receive second Incoming Queue Message (VAU) ?
No
In 2214 DISC_TIME, enter 0.
Yes
In 2214 DISC_TIME, assign the duration time to disconnect a call after start a second delay message.
In 0414 Timer 4, assign the interval time between message and message. (0 - 64800 sec.)
Should outside caller listen RBT, Int-MOH or Ext-MOH between message and message ?
RBT
Int-MOH
Ext-MOH
In 2214 TONE, enter 0 to send a Ring Back Tone.
In 2214 TONE, enter 1 to send a Internal Music On Hold tone.
In 2214 TONE, enter 2 to send a External Music On Hold tone.
Go to the following page (D)

Incoming Queue Message (VAU) (Cont'd)

Programming (Cont'd)


Continued from previous page (D)
Which is type of exchange line activated Incoming Queue Message (VAU) DUD/DISA line "1" or "2", DDI "3" or DIL line "4" in CMD 0901 ?
"1" or "2"
"3"
"4"
In 1802 and 1803, assign a transferred Incoming Ring Group, if nobody answers to the incoming call .
In 1809,1810,1814 and 1815 assign a transferred Incoming Ring Group, if nobody answers to the incoming call.
In 0919, assign a transferred Incoming Ring Group, if nobody answers to the incoming Ring Group.
In 0405 Timer 35, assign DUD/DISA transfer time.
In 0414 Timer 9, assign DDI transfer time.
In 0405 Timer 62, assign DIL transfer time.
Stop

Incoming Queue Message (VAU) (Cont'd)

Programming (Cont'd)

Case 1, 2)

> 0405 – System Timers, Part A Timer_15 : Pre-selection time
  Define the effective duration time of the Incoming Queue Message (VAU) key.
> 0405 – System Timers, Part A Timer_43 : Disconnect after VAU answers
  Define the duration time from "VAU answers" to "the line is terminated".
> 0405 – System Timers, Part A Timer_62 : No answer time at Normal or DIL call
  Define the duration time for no answer for DIL line.
> 0414 – System Timers, Part B Timer_04 : VAU overflow message interval
  Define the duration time between message and message.
> 0514 – Service Code Setup, Part B Item_06 : Operation for VAU message
  By using this service code, all VAU messages are operated. (recording, listening, erasing)
> 0901 – Basic Trunk Port Setup, Part A Item_14...17 : Service type (Day,Night, Midnight, Rest)
  Assign the service type of each exchange line.
> 0919 – Transfer Incoming Ring Group if Normal or DIL call is no answer
  For each DIL with delayed ringing, enter the DIL No Answer Ring Group.
> 1006 – Programming Function Keys
  To have the manual Incoming Queue Message (VAU) key, program a line key it. (code 1082)
> 2213 – VAU Incoming Queue Message Setup for IRG
  Define the several timers (1st message connection timer, etc.), and assign the VAU Message No. which is used for 1st / 2nd Waiting Message and the kind of Waiting Tone for each Incoming Ring Group.

Case 3)

> 0414 – System Timers, Part B Timer_04 : VAU overflow message interval
  Define the duration time between message and message.
> 0414 – System Timers, Part B Timer_09 : No answer time at Station Group DDI call
  Define the duration time between "receive a incoming call" and "transferring a call".
> 0514 – Service Code Setup, Part B Item_06 : Operation for VAU message
  By using this service code, all VAU messages are operated. (recording, listening, erasing)

Incoming Queue Message (VAU) (Cont'd)

Programming (Cont'd)

> 0901 – Basic Trunk Port Setup, Part A Item_14...17 : Service type (Day, Night, Midnight, Rest)

Assign the service type of each exchange line.

> 2214 – VAU Incoming Queue Message Setup for Extension Group

Define the several timers (1st message connection timer, etc.), and assign the VAU Message No. which is used for 1st / 2nd Waiting Message and the kind of Waiting Tone for each Department Group.

> 1809 – DDI Transfer Ring Group (Trunk Group basis)

> 1810 – DDI Operation mode Setup

> 1814 – DDI Transfer Ring Group Table-1 (Trunk Group basis)

> 1815 – DDI Transfer Ring Group Table-2 (Trunk Group basis)

Setup the DDI facility by using above commands. Queue message process will finish and this queuing message call will be transferred by above commands.

Case 4)

> 0405 – System Timers, Part A Timer_35 : No answer time at DUD/DISA call

Define the duration time between "receive a incoming call" and "transferring a call".

> 0414 – System Timers, Part B Timer_04 : VAU overflow message interval

Define the duration time between message and message.

> 0514 – Service Code Setup, Part B Item_06 : Operation for VAU message

By using this service code, all VAU messages are operated. (recording, listening, erasing)

> 0901 – Basic Trunk Port Setup, Part A Item_14...17 : Service type (Day,Night, Midnight,Rest)

Assign the service type of each exchange line.

> 2214 – Incoming Queue Message (VAU) for Incoming Ring Group

Define the several timers (1st message connection timer, etc.), and assign the VAU Message No. which is used for 1st / 2nd Waiting Message and the kind of Waiting Tone for each Department Group.

> 1802 – DUD/DISA Operation Mode Setup

> 1803 – DUD/DISA Transfer Ring Group Setup

Setup the DUD/DISA facility by using above commands. Queue message process will finish and this queuing message call will be transferred by above commands.

Incoming Queue Message (VAU) (Cont'd)

Programming (Cont'd)

Case 5)

> 0405 – System Timers, Part A Timer_62 : No answer time at Normal or DIL call
Define the duration time between "receive a incoming call" and "transferring a call".

> 0414 – System Timers, Part B Timer_04 : VAU overflow message interval
Define the duration time between message and messages.

> 0514 – Service Code Setup, Part B Item_06 : Operation for VAU message
By using this service code, all VAU message are operated. (recording, listening, erasing)

> 0901 – Basic Trunk Port Setup, Part A Item_14...17 : Service type (Day, Night, Midnight, Rest)
Assign the service type of each exchange line.

> 0919 – Transfer Incoming Ring Group if Normal or DIL call is no answer
For each DIL with delayed ringing, enter the DIL No Answer Ring Group.

> 2214 – Incoming Queue Message (VAU) for Incoming Ring Group
Define the several timers (1st message connection timer, etc.), and assign the VAU Message No. which is used for 1st / 2nd Waiting Message and the kind of Waiting Tone for each Department Group.

Operation

Automatic Incoming Queue Message (VAU)

1. Incoming call.
2. All extensions are busy / no answer. (Pre-programmed time passed.)
3. VAU automatically answers then send the 1st Waiting Message or Fixed Message.
4. This line is automatically held.

Manual Incoming Queue Message (VAU)

1. Incoming call.
2. All extensions are busy / no answer.
3. Press "Incoming Queue Message (VAU)" key and the line key.
4. VAU answers then send the 1st Waiting Message or Fixed Message.
5. This line is automatically held.

Incoming Queue Message (VAU) (Cont'd)

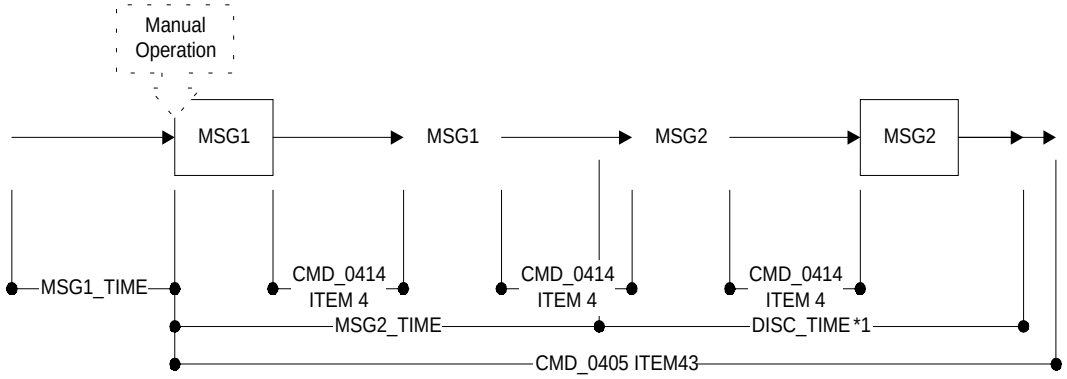
Appendix. - Incoming Queue Message (VAU) -

1st message connection	: MSG1_TIME
2nd message connection	: MSG2_TIME
2nd message sending time	: DISC_TIME
1st message No.	: MSG1
2nd message No.	: MSG2

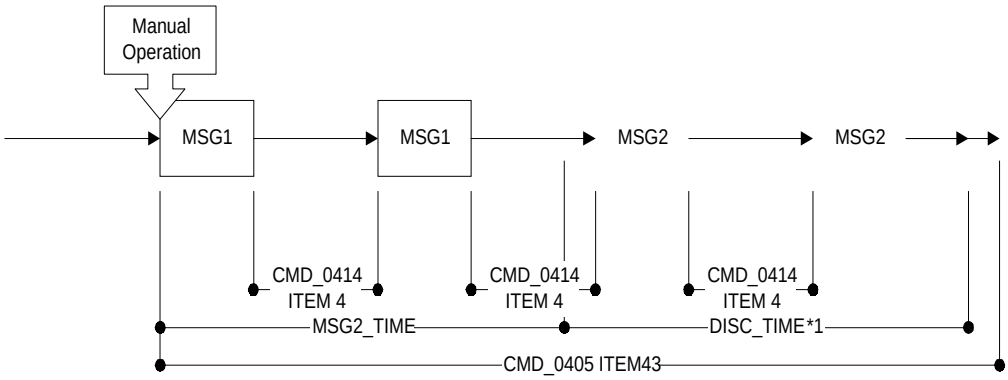
1. Incoming Ring Group Call (Automatic or Manual)

1-1. 1st message to 2nd message (MSG1 = 1..17, MSG2 = 1...17, MSG2_TIME = 1...64800)

(A) Automatic & Manual (MSG1_TIME = 1...64800)



(B) Manual only (MSG1_TIME = 0)



Incoming Queue Message (VAU) (Cont'd)

Appendix (Cont'd)

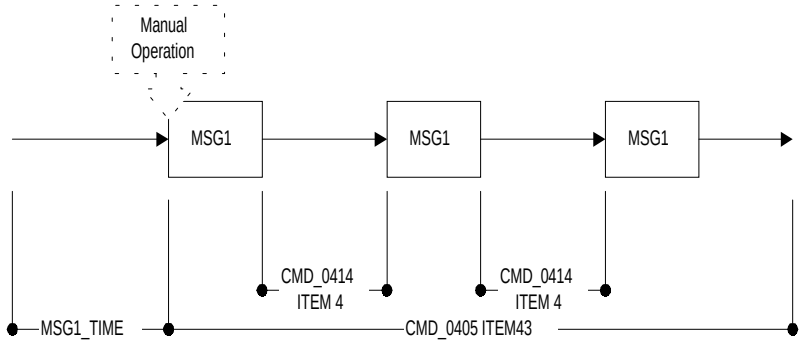
Note1) If DISC_TIME = 0 , a queuing call will not be cut after 2nd message has been sent, and the 2nd message process will be continue.

Note2) If the preprogrammed time (Command : 0405 Timer_43) has passed after sending Incoming Queue Message (VAU), the Queue Message process will finish and the external line will be cut.

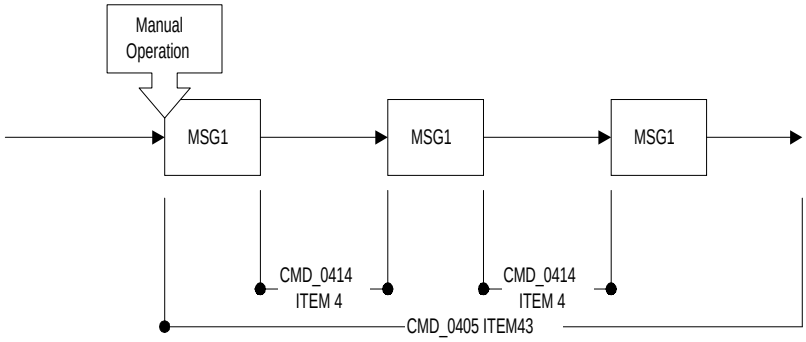
Note3) If the preprogrammed time (Command : 0405 Timer_62) has passed after received an incoming call, the Queue Message process will finish and this queuing call will be transferred by Command 0919.

1-2. 1st message only (MSG1 = 1...64800, MSG2 = 0 or MSG2_TIME = 0

(A) Automatic & Manual (MSG1_TIME = 1...64800)



(B) Manual only (MSG1_TIME = 0)



Note1) If the preprogrammed time (Command : 0405 Timer_43) has passed after sending Incoming Queue Message (VAU), the Queue Message process will finish and the external line will be cut.

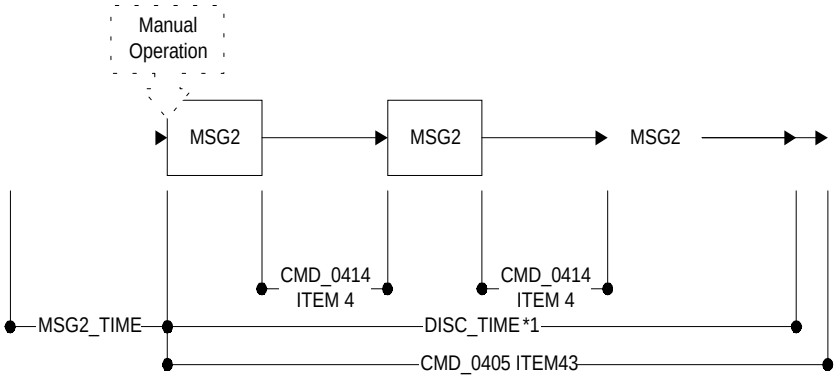
Note2) If the preprogrammed time (Command : 0405 Timer_62) has passed after received an incoming call, the Queue Message process will finish and this queuing call will be transferred by Command 0919.

Incoming Queue Message (VAU) (Cont'd)

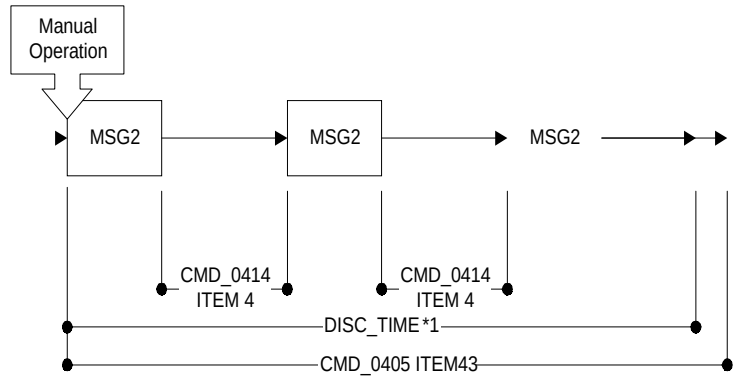
Appendix (Cont'd)

1-3. 2nd message only (MSG1 = 0, MSG2 = 1...17)

(A) Automatic & Manual (MSG2_TIME = 1...17)



(B) Manual only (MSG2_TIME = 0)



Note1) If DISC_TIME = 0 , a queuing call will not be cut after 2nd message has been sent, and the

2nd message process will be continue.

Note2) If the preprogrammed time (Command : 0405 Timer_43) has passed after sending Incoming Queue Message (VAU), the Queue Message process will finish and the external line will be cut.

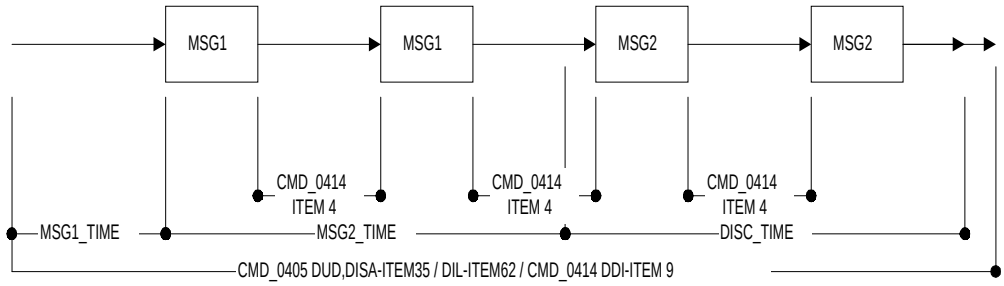
Note3) If the preprogrammed time (Command : 0405 Timer_62) has passed after received an incoming call, the Queue Message process will finish and this queuing call will be transferred by Command 0919.

Incoming Queue Message (VAU) (Cont'd)

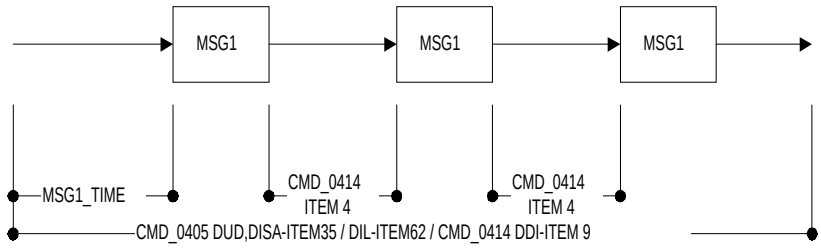
Appendix (Cont'd)

2. STG Call (Timer Only)

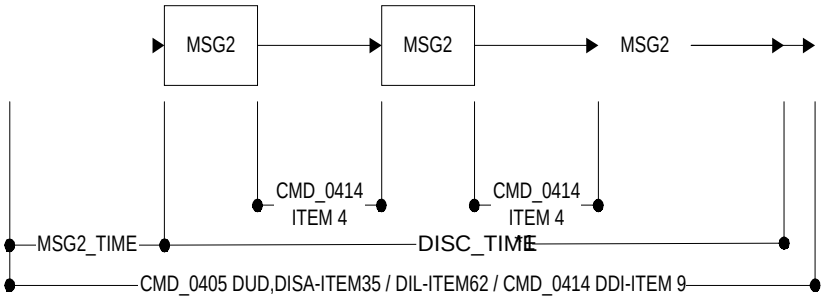
2-1. 1st message to 2nd message (MSG1 = 1...17, MSG1_TIME = 1...64800, MSG2 = 1...17, MSG2_TIME 1...64800)



2-2. 1st message only (MSG1 = 1...17, MSG1_TIME = 1...64800, MSG2 = 0 or MSG2_TIME = 0)



2-3. 2nd message only (MSG1 = 0 or MSG1_TIME = 0, MSG2 = 1...17, MSG2_TIME = 1...64800)



Incoming Queue Message (VAU) (Cont'd)

Appendix (Cont'd)

Note1) If the preprogrammed time (Command : 0405 Timer_35) has passed after received an incoming call, the Queue Message process will finish and this queuing call will be transferred by Command 1802 and 1803 respectively.

Note2) If the preprogrammed time (Command : 0405 Timer_62) has passed after received an incoming call, the Queue Message process will finish and this queuing call will be transferred by Command 0919.

Note3) If the preprogrammed time (Command : 0414 Timer_9) has passed after received an incoming call, the Queue Message process will finish and this queuing call will be transferred by Command 1809, 1810 ,1814 and 1815 respectively.

Intercom

Description

Intercom gives extension users access to other extensions. This provides the system with complete internal calling capability.

Intercom calls can ring or be voice-announced at the called extension.

Conditions

This feature available for key telephone and single line telephone.

Default Setting

- Intercom Interdigit Time 10 seconds.
- Extension Dial Tone Time is 10 seconds.
- An extension's Class of Service allows the placing of Intercom calls.
- An extension's Class of service allows setting Intercom Talkback or Forced Intercom Ringing.
- An extension's Class of Service allows setting Intercom Talkback or Forced Intercom Ringing for outgoing Intercom calls.
- One Digit Service Code for Switching of voice/signal call is dial 1.
- The operator's extension is 200 (port 1).

Options

None

Programming

> 0405 – System Timers, Item 10: Intercom Interdigit Time
  Set the Intercom Interdigit Time (0-64800 seconds). When placing Intercom calls, users must dial each digit within this interval.

> 0405 – System Timers, Item 28: Extension Dial Tone Sending Time
  Set the Intercom Interdigit Time (0-64800 seconds). After getting Intercom dial tone, a keyset user has this interval to dial the first digit of the Intercom call.

> 0406 – COS Options, Item 61; Intrusion Tone
  In an extension's Class of Service, enable (1) or disable (0) an extension's ability to place Intercom calls.

> 0406 – COS Options, Item 68: Setting of signal/voice called
  In an extension's Class of Service, enable (1) or an extension's ability to set Handsfree Answerback (Service Code 821) and Forced Intercom Ringing (Service Code 823).

Intercom (Cont'd)

Programming (Cont'd)

> 0406 – COS Options, Item 72: Switching of signal/voice call
In an extension's Class of Service, enable (1) or disable (0) an extension's ability for Handsfree Answerback or Forced Intercom Ringing for outgoing Intercom calls (Service Code 812).

> 0408 – System Cycle setup, Item 3: Intercom call
Set the ring cycle for Intercom calls.

> 0501 – System Numberring
Assign first digit and second digits for extension number.

> 0502 – Extension Numbers and names
Assign an extension number and names for each extension port.

> 0511 – Service Code Setup, Part A Item 32: Incoming intercom mode setting (voice)
Assign a service code of handsfree answerback for your incoming intercom calls.

> 0511 – Service Code Setup, Part A
Item 33: Incoming intercom mode setting (signal)
Assign a service code of forced intercom ringing for your incoming intercom calls.

> 0511 – Service Code Setup, Part A Item 40: switching of voice call and signal call
Assign a service code of change the way your intercom call signals the extension you are calling.

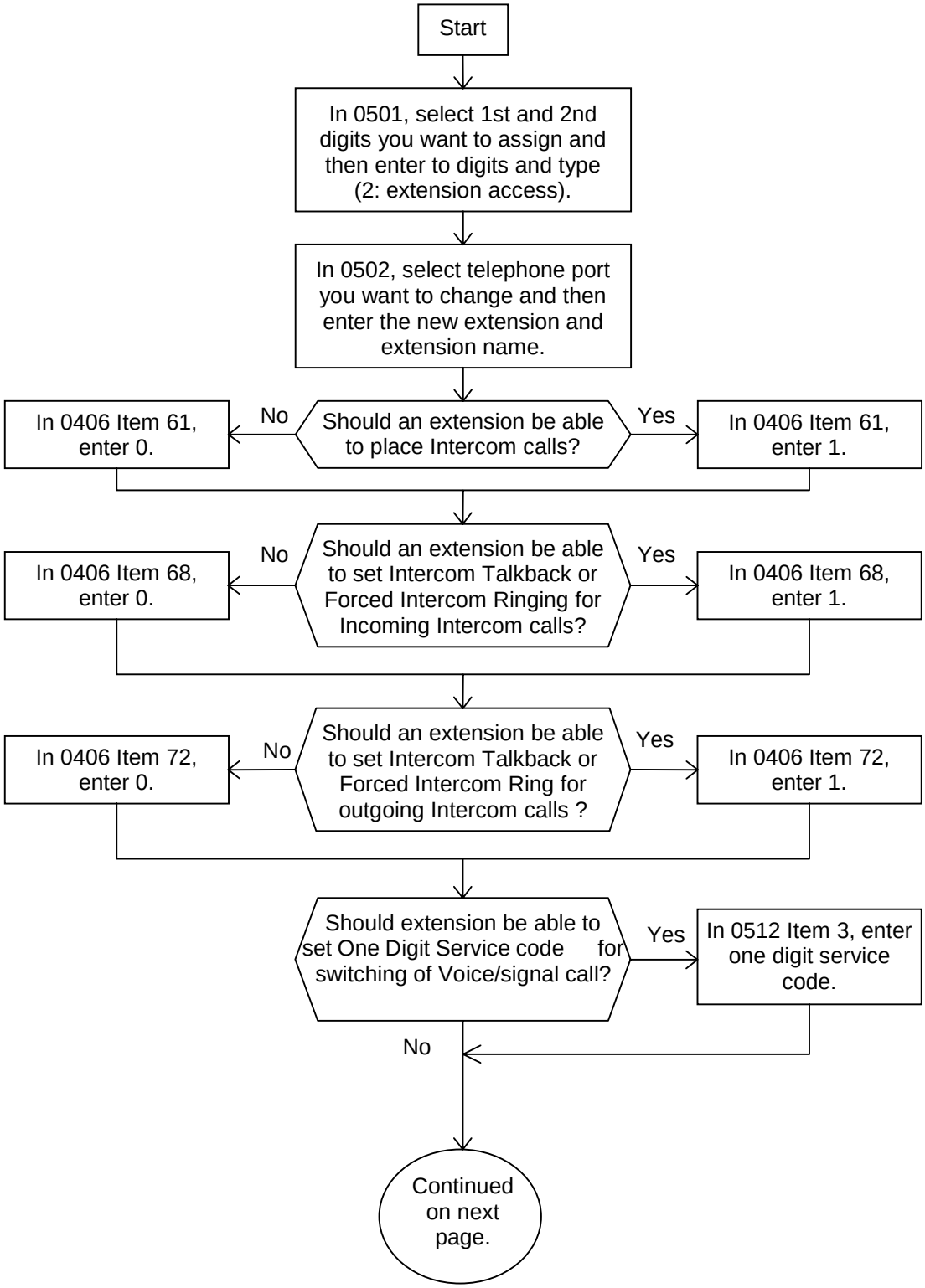
> 0512 – One Digit Service Code Setup, Service No. 3: Switching of voice/signal call
Assign a one digit service code of switching of voice/signal call.

> 1005 – Class of Service for Extension
Assign a Class Of Service (1-10) to an extension.

> 1105 – Operator's Extension
Assign the operator's extension.

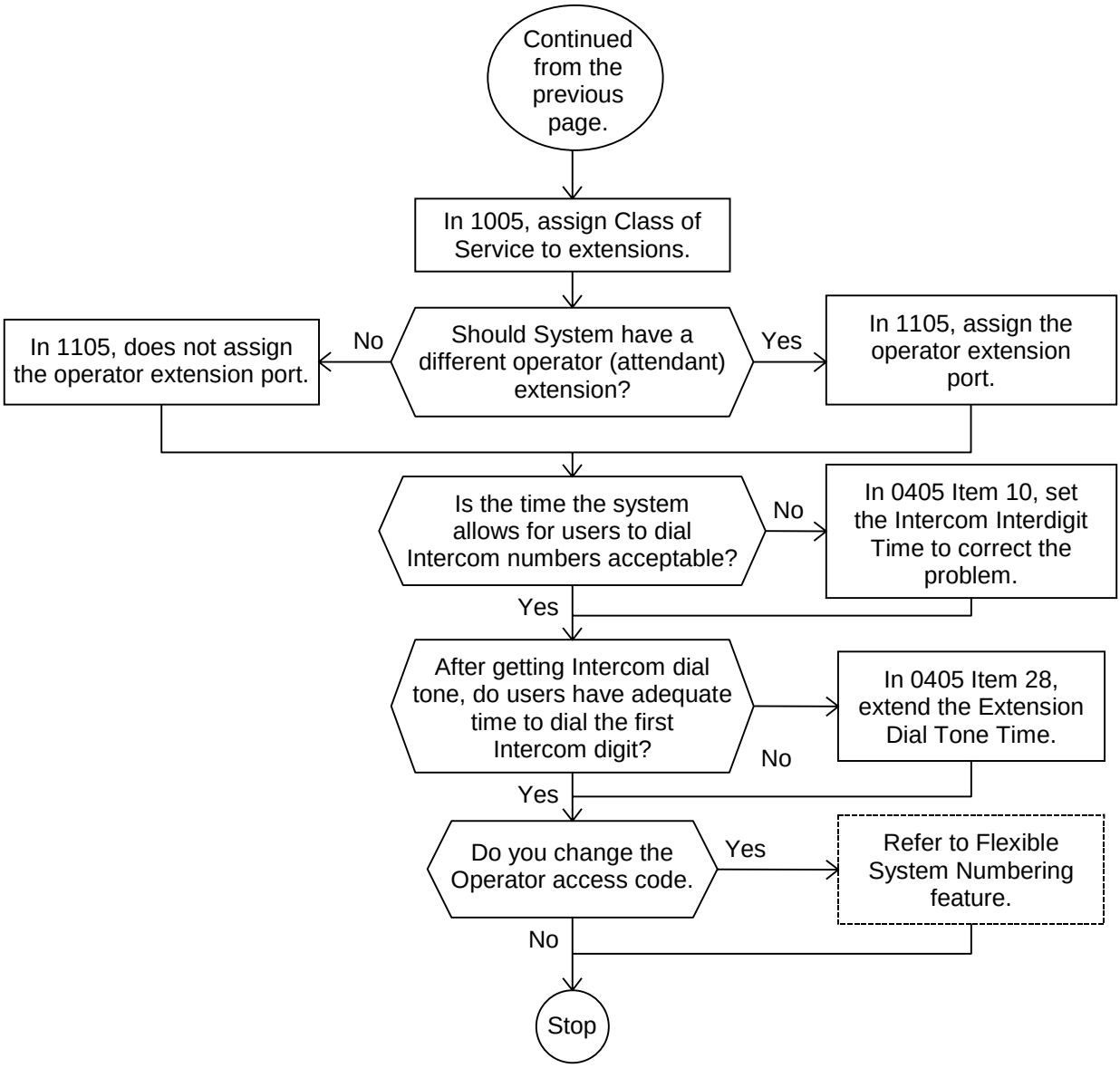
Intercom (Cont'd)

Programming (Cont'd)


Start
In 0501, select 1st and 2nd digits you want to assign and then enter to digits and type (2: extension access).
In 0502, select telephone port you want to change and then enter the new extension and extension name.
Should an extension be able to place Intercom calls?
No
In 0406 Item 61, enter 0.
Yes
In 0406 Item 61, enter 1.
Should an extension be able to set Intercom Talkback or Forced Intercom Ringing for Incoming Intercom calls?
No
In 0406 Item 68, enter 0.
Yes
In 0406 Item 68, enter 1.
Should an extension be able to set Intercom Talkback or Forced Intercom Ring for outgoing Intercom calls ?
No
In 0406 Item 72, enter 0.
Yes
In 0406 Item 72, enter 1.
Should extension be able to set One Digit Service code for switching of Voice/signal call?
Yes
In 0512 Item 3, enter one digit service code.
No
Continued on next page.

Intercom (Cont'd)

Programming (Cont'd)


Continued from the previous page.
In 1005, assign Class of Service to extensions.
Should System have a different operator (attendant) extension?
No
In 1105, does not assign the operator extension port.
Yes
In 1105, assign the operator extension port.
Is the time the system allows for users to dial Intercom numbers acceptable?
No
In 0405 Item 10, set the Intercom Interdigit Time to correct the problem.
Yes
After getting Intercom dial tone, do users have adequate time to dial the first Intercom digit?
No
In 0405 Item 28, extend the Extension Dial Tone Time.
Yes
Do you change the Operator access code.
Yes
Refer to Flexible System Numbering feature.
No
Stop

Intercom (Cont'd)

Related Features

Line Preference

Ringing Line Preference can automatically answer ringing Intercom or Trunk Line calls when the user lifts the handset.

Name Storing (Trunk & Station)

An extension can have a name assigned that identifies the extension to callers.

Operator Calling

Operator access can be dial normal operator's extension number or operator calling number.

Operation

<Key Telephone>

To place an Intercom call:

1. Press idle CL key.
2. Dial extension number.

   Your call may voice-announce or ring the called extension. To force your Intercom call to ring, dial 1( ) or dial 812( ) after the extension number.

   If the extension you call is busy or doesn't answer, you can dial another extension without hanging up.

To answer an Intercom call:

1. If you hear two beeps, speak toward phone.

   Your telephone picks up your voice.

   OR

   If your telephone rings, lift handset.

To enable Handsfree Answerback for your incoming Intercom calls:

1. Press idle CL key.
2. Dial 821( ).

   (Confirmation tone is heard.)
3. Press SPK to hang up.

   This disable Forced Intercom Ringing.

Intercom (Cont'd)

Operation (Cont’d)

<Key Telephone> (Cont’d)

To enable Forced Intercom Ringing for your incoming Intercom calls:

1. Press idle CL key.
2. Dial 823( ).
   (Confirmation tone is heard.)
3. Press SPK to hang up.
   This disables Handsfree Answerback.

To check your extension's data:

1. Press CHECK.
2. Press CL1.
   You display shows your telephone's extension number, port number and extension/Department Group.

<Single Line Telephone>

To place an Intercom call:

1. Off hook.
2. Dial extension number (or 0 for your operator).
   Your call to key telephone may voice-announce or ring the called extension. To force your Intercom call to ring, dial 1( ) or dial 812( ) after the extension number.
   If the extension you call is busy or doesn't answer, you can dial another extension without on hook.

To answer an Intercom call:

1. Off hook.

To check your extension's data:

This feature is only available for key telephone.

Intercom Abandoned Call Display

Description

Intercom Abandoned Call Display shows a display extensions user a lift of Intercom calls placed to them that they did not answer. This is a convenience if a user has to temporarily leave their desk. When they return, they can display the list to find out who called while they were out.

Conditions

This feature available for key telephone with display.

Default Setting

- Intercom Abandoned Call Display enabled.

Options

None

Programming

> 0406 – COS Options, Item 13: Intercom abandoned Call Display
> In an extension's Class of Service, enable (1) or disable (0) an extension's ability to use Intercom Abandoned Call Display.

> 1005 – Class of Service for Extension
> Assign a Class Of Service (1-10) to an extension.

Related Features

Intercom

Intercom gives extension users access to other extensions.

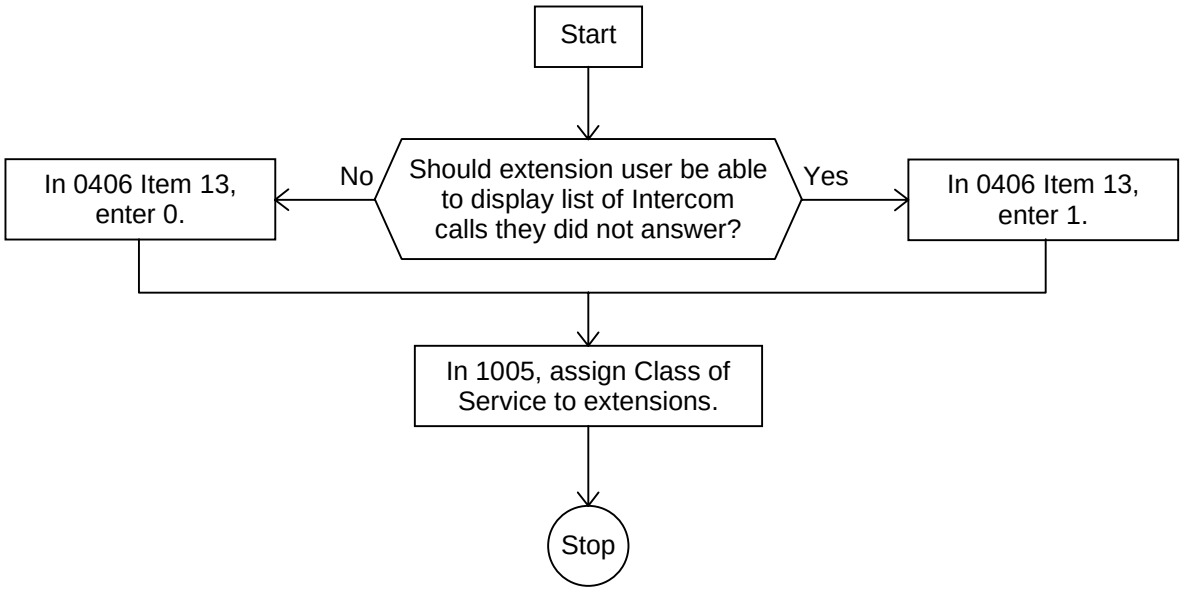
Operation

To display the list of Intercom calls you did not answer:

1. Press CHECK.
2. Press CL2.
   Repeatedly press CL2 until no more calls display.
3. Press CLEAR to return to the normal Time and Date display.

Intercom Abandoned Call Display (Cont'd)

Programming (Cont'd)


Start
Should extension user be able to display list of Intercom calls they did not answer?
No
Yes
In 0406 Item 13, enter 0.
In 0406 Item 13, enter 1.
In 1005, assign Class of Service to extensions.
Stop

Intercom Off-Hook Signaling

When a user calls to an extension busy on a call, he/she can send an off-hook signal indicating he/she is trying to get through. This is one of “Override” functionality that is not cut in to the established conversation, but to send the ring to the speaker of keyphone, or to send short beep tone to the handset of single line telephone.

<Note> By the same operation procedure, but it may go to the speaker of keyphone verbally. This is due to the CDHF-A installation in the keyphone at the called side. The functionality is described as “Voice Over” in this issue.

The system provides the following “Intercom Off-hook Signaling” options:

- **Called Extension Block**

  The called extension's Class of Service may block incoming off-hook signaling attempts. This is beneficial to users that don't want to have interruptions while on a call.

- **Automatic Off-hook Signaling**

  Calling a busy extension automatically initiates Off-hook signaling. This option is set in the calling extension's Class of Service.

- **Manual Off-hook Signaling**

  When the above option is not set, then system provides this option. In case of reaching to a busy extension, the caller can dial service code or press function key to send Off-hook Signaling to the called keyphone manually.

- **Prefer Off-hook Signaling at the keyphone with CDHF-A**

  If the keyphone (with CDHF-A) user sets this mode by service code, called mode shall be Off-hook Signaling, not Voice Over.

Conditions

The Off-hook Signal call is available for key telephone and single line telephone.

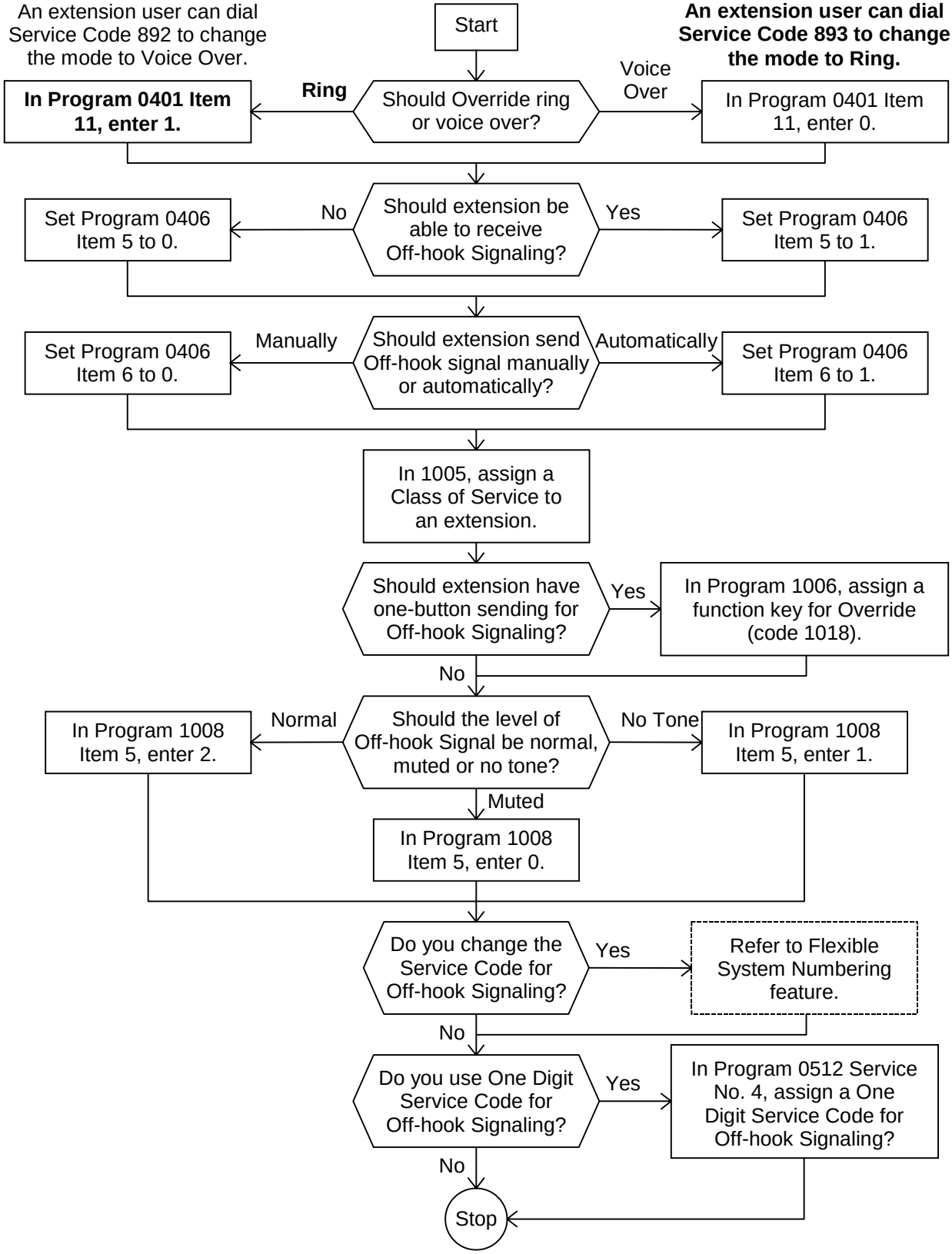
When single line telephone receives Off-hook signaling, short beep tone is heard.

Default Setting

- An extension's COS allows it to receive Off-hook Signaling.
- An extension's COS prevents it from automatically sending Off-hook Signaling.
- Off-hook Signaling is muted (Program 1008 Item 5 = 0).
- Service code for Off-hook Signaling is dial 809.
- Service code for setting of forced Off-hook Signaling is dial 893.
- One digit service code for Off-hook Signaling is no setting.

Intercom Off-Hook Signaling (Cont'd)

Programming


An extension user can dial Service Code 892 to change the mode to Voice Over.
Start
An extension user can dial Service Code 893 to change the mode to Ring.
In Program 0401 Item 11, enter 1.
Ring
Should Override ring or voice over?
Voice Over
In Program 0401 Item 11, enter 0.
Set Program 0406 Item 5 to 0.
No
Should extension be able to receive Off-hook Signaling?
Yes
Set Program 0406 Item 5 to 1.
Set Program 0406 Item 6 to 0.
Manually
Should extension send Off-hook signal manually or automatically?
Automatically
Set Program 0406 Item 6 to 1.
In 1005, assign a Class of Service to an extension.
Should extension have one-button sending for Off-hook Signaling?
Yes
In Program 1006, assign a function key for Override (code 1018).
No
In Program 1008 Item 5, enter 2.
Normal
Should the level of Off-hook Signal be normal, muted or no tone?
No Tone
In Program 1008 Item 5, enter 1.
Muted
In Program 1008 Item 5, enter 0.
Do you change the Service Code for Off-hook Signaling?
Yes
Refer to Flexible System Numbering feature.
No
Do you use One Digit Service Code for Off-hook Signaling?
Yes
In Program 0512 Service No. 4, assign a One Digit Service Code for Off-hook Signaling?
No
Stop

Intercom Off-Hook Signaling (Cont'd)

Programming (Cont'd)

> 0401 – System Options, Part A, Item 11: Called mode setting for override.
Enter 1 to have off-hook signal ring at the called busy extension.
Enter 0 to have Voice Over to the called busy extension. An extension user can override these settings by dialing Service Code 892 (for voice over) or 893 (for off-hook signal).

> 0406 – COS Options, Item 5: Override
In an extension's Class of Service, enable (1) or disable (0) the extension's ability to automatically send override call.

> 0406 – COS Options, Item 6: Automatic Override
In an extension's Class of Service, enable (1) or disable (0) the extension's ability to automatically send override call to an extension busy on a handset call.

> 0511 – Service Code Setup, Item 15: Override
Assign a service code for Override.

> 0511 – Service Code Setup, Part A
Item 83: Setting of signal called for override
Assign a service code for setting of signal called override.

> 0511 – Service Code Setup, Part A
Item 82: Setting of Voice Over called for override
Assign a service code for setting of voice-announce called for override.

> 0512 – One Digit Service Code Setup, Service No. 4: Override
Assign a one digit service code for override.

> 1005 – Class of Service for Extension
Assign a Class of Service (1-10) to an extension.

> 1006 – Programming Function Keys
Assign a function key for override (code 1018).

> 1008 – Basic Extension Port Setup (Part B), Item 5: Override Call
For each extension, set Override type: 0 (muted), 1 (no tone) or 2 (normal).

Options

None

Intercom Off-Hook Signaling (Cont'd)

Related Features

Call Waiting/Camp On and Callback

An extension user cannot Camp On to a busy extension or leave a Callback if Override has already gone through.

Handsfree (Speaker & Microphone)

You cannot send override to an extension busy on a Handsfree (Speakerphone) call.

The called extension's idle CL key flashes fast, with no ringing.

Operation

<Key Telephone>

To place Off-hook Signaling to an extension busy on a handset call:

1. Call to busy keyphone.
   You hear busy tone
2. Dial 809( ).
   OR
   Press Override key (PGM 1006 or SC 851: 1018).
   OR
   Dial one digit service code for override( ).
   You hear ring-back tone

To set Off-hook Signaling mode at your extension (with CDHF-A):

1. Press idle CL key.
2. Dial 893( ).to set.
   To answer the signal, you must first hang up your current call or place it on Hold.

<Single Line Telephone>

To place Off-hook Signaling to an extension busy on a handset call:

1. Call to busy keyphone.
   You hear busy tone.
2. Dial 809( ).
   OR
   Dial one digit service code for override( ).
   You hear ring-back tone.

To set Off-hook Signaling mode at your extension:

This feature is only available for key telephone.

ISDN Compatibility (Euro)

Description

This system provides the connectivity with ISDN trunks for both BRI (Basic Rate Interface: 2B+D) and PRI (Primary Rate Interface: 30B+D) under Euro specification.

Hardware options are as follows:- (refer to Hardware Manual for dX-Z24 / dX-Z96)

DX2E-4BRIU-S1 / DX2E-2BRIU-S1 for BRI

DX2E-PRIU-S1 for PRI

For the details of programming, refer to the separate issue as follows:-

dX-Z96 Euro-ISDN Manual (Basic Rate Interface) (T-point / S-point support)

dX-Z96 Euro-ISDN Manual (Primary Rate Interface)

Key Touch Tone

Description

For an extension with Key Touch Tone enabled, the user hears a beep each time upon they press a dial key pad. This is helpful to users that prefer the additional audible confirmation.

Conditions

This feature available for key telephone.

Default Setting

- An extension's Class of Service prevents if from turning Key Touch tone on and off.
- Key Touch Tone is initially off at all extensions.
- Service Code of Key Touch Tone is dial 824.

Options

None

Programming

> 0406 – COS Options, Item 56: Key Touch Tone
> In an extension's Class of Service, enable (1) or disable (0) an extension's ability to turn Dial Pad Confirmation tone on and off.

> 0511 – Service Code Setup, Part A Item 53: Key touch tone
> Assign a service code for Dial Pad Confirmation Tone.

> 1005 – Class of Service for Extension
> Assign a Class of Service (1-10) to an extension.

Related Features

None

Operation

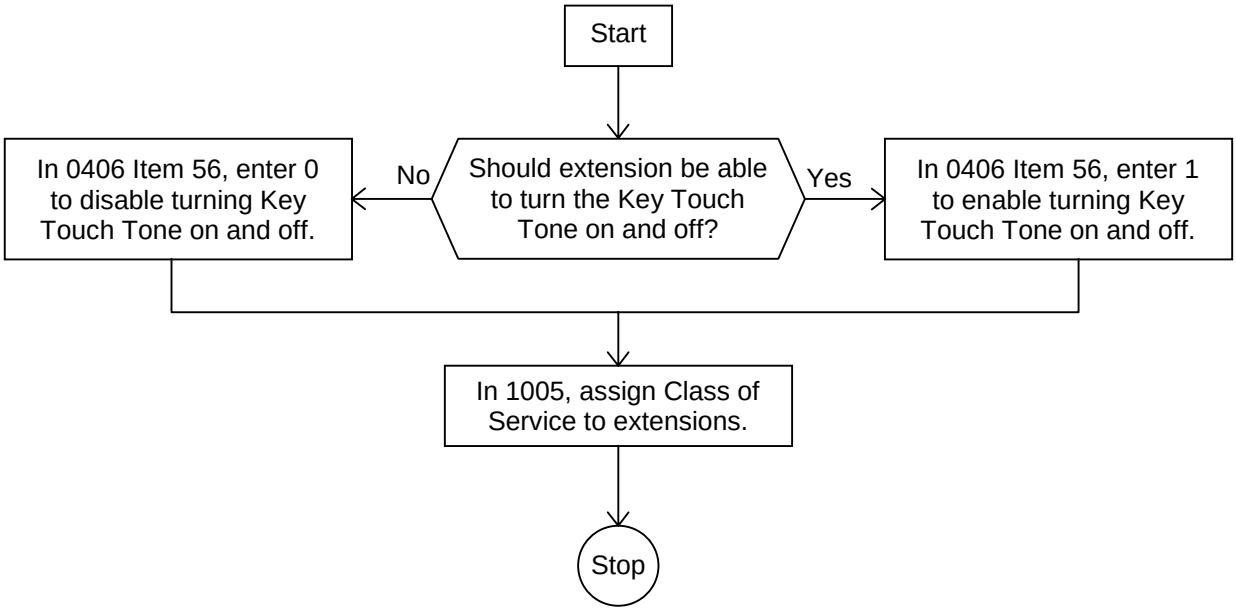
<Key Telephone>

To enable/disable Key Touch Tone:

1. Press idle CL key.
2. Dial 824( ).
   (Confirmation tone is heard.)

Key Touch Tone (Cont'd)

Programming (Cont'd)


Start
Should extension be able to turn the Key Touch Tone on and off?
No
Yes
In 0406 Item 56, enter 0 to disable turning Key Touch Tone on and off.
In 0406 Item 56, enter 1 to enable turning Key Touch Tone on and off.
In 1005, assign Class of Service to extensions.
Stop

Last Number Dialing

Description

Last Number Dialing allows an extension user to quickly redial the last number dialed. For example, a user may quickly recall a busy or unanswered number without manually dialing the digits.

Last Number Dialing saves in system memory the last 24 digits a user dials. The number can be any combination of digits 0-9, # and *. The system normally uses the same Trunk Line group as for the initial call. However, the extension user can preselect a specific Trunk Line if desired.

Conditions

This feature available for key telephone and single line telephone.

Default Setting

- An extension's Class of Service allows Last Number Dialing.
- Service Code of Last Number Dialing is dial 816.
- Service Code of Clear Last Number Dialing is dial 876.

Options

None

Programming

> 0406 – COS Options, Item 48: Last Number Dialing
  In an extension's Class of Service, enable (1) or disable (0) an extension's ability to use Last Number Dialing.

> 0511 – Service Code Setup, Part A Item 13: Last Number Dialing
  Assign a service code of Last Number Dialing.

> 0511 – Service Code Setup, Part A Item 54: Clear Last Number Dialing
  Assign a service code of clear Last Number Dialing.

> 1005 – Class of Service for Extension
  Assign a Class Of Service (1-10) to an extension.

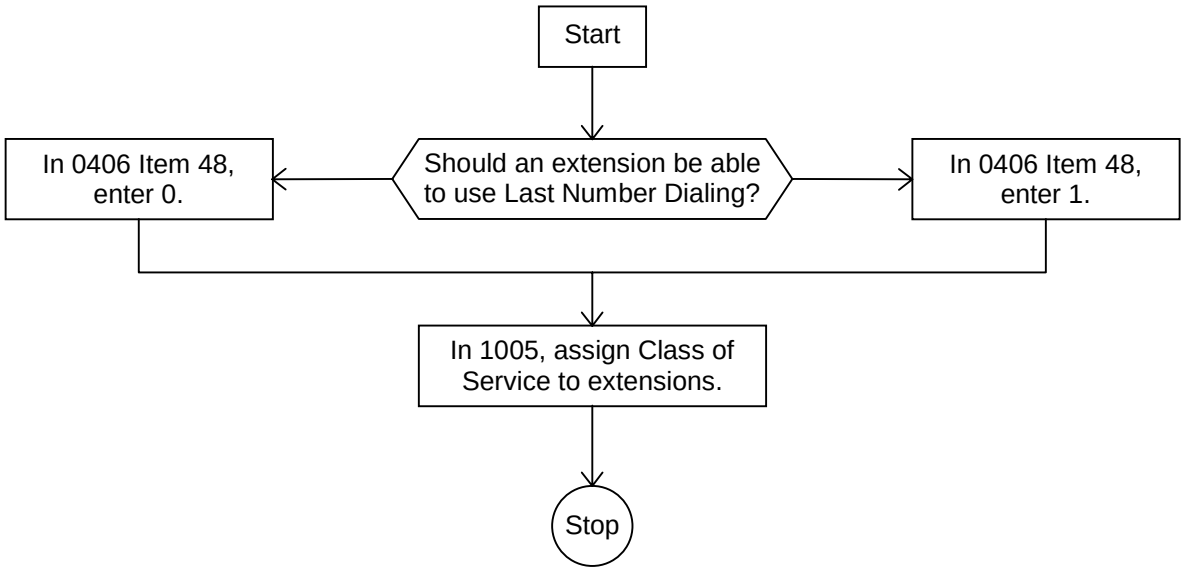
Related Features

Automatic Repeat Dialing

The system can periodically redial an unanswered Trunk Line call.

Last Number Dialing (Cont'd)

Programming (Cont'd)


Start
Should an extension be able to use Last Number Dialing?
In 0406 Item 48, enter 0.
In 0406 Item 48, enter 1.
In 1005, assign Class of Service to extensions.
Stop

Last Number Dialing (Cont'd)

Operation

<Key Telephone>

To redial your last call:

1. (Optional) Press idle line key.
   If you skip, the system automatically selects a Trunk Line from the same group as your original call.
2. Press LND.

OR

1. Press idle CL key.
2. Dial 816( ).
   The system automatically selects a Trunk Line from the same group as your original call.

To check the number kept for Last Number Dialing (This feature only available for key telephone with display):

1. Press LND.
   The stored number displays for six seconds.
   The stored number dials out if you:
   - lift the handset,
   - Press an idle line key,
   - Press an idle CL key, or
   - Press SPK
2. *Press CLEAR.*

To erase the kept number:

1. Press idle CL key.
2. Dial 876( ).
   (Confirmation tone is heard.)

<Single Line Telephone>

To redial your last call:

1. Off hook.
2. Dial 816( ).
   The system automatically selects a Trunk Line from the same group as your original call.

To check the number kept for Last Number Dialing:

This feature only available for key telephone with display

To erase the kept number;

1. Off hook.
2. Dial 876( ).
   (Confirmation tone is heard.)

LCR (Least Cost Routing)

Description

Nowadays, not only one carrier (public exchange supplier) may provide the trunk lines to subscriber sites. If one of local carriers offers you special discount, then the system manager may think that all of the calls should be routed to the carrier's line. In this case, if the first digit for outside trunk is started from either 0 or 1, then LCR (Least Cost Routing) function shall control (add/delete/change) the digits for the line.

Conditions

The feature is available for keyphone and single line telephone.

Default Setting

- The feature is not provided for any trunk lines.

Options

None

Programming

> 0901 – Basic Trunk Port Setup Part A, Item32: Least Cost Routing

Enter 1 (LCR ON) or 2 (LCR ON, Cost Center Code only) for the LCR trunk lines.

> 3001 – Digit Analyze Table

> 3002 – Carrier Table

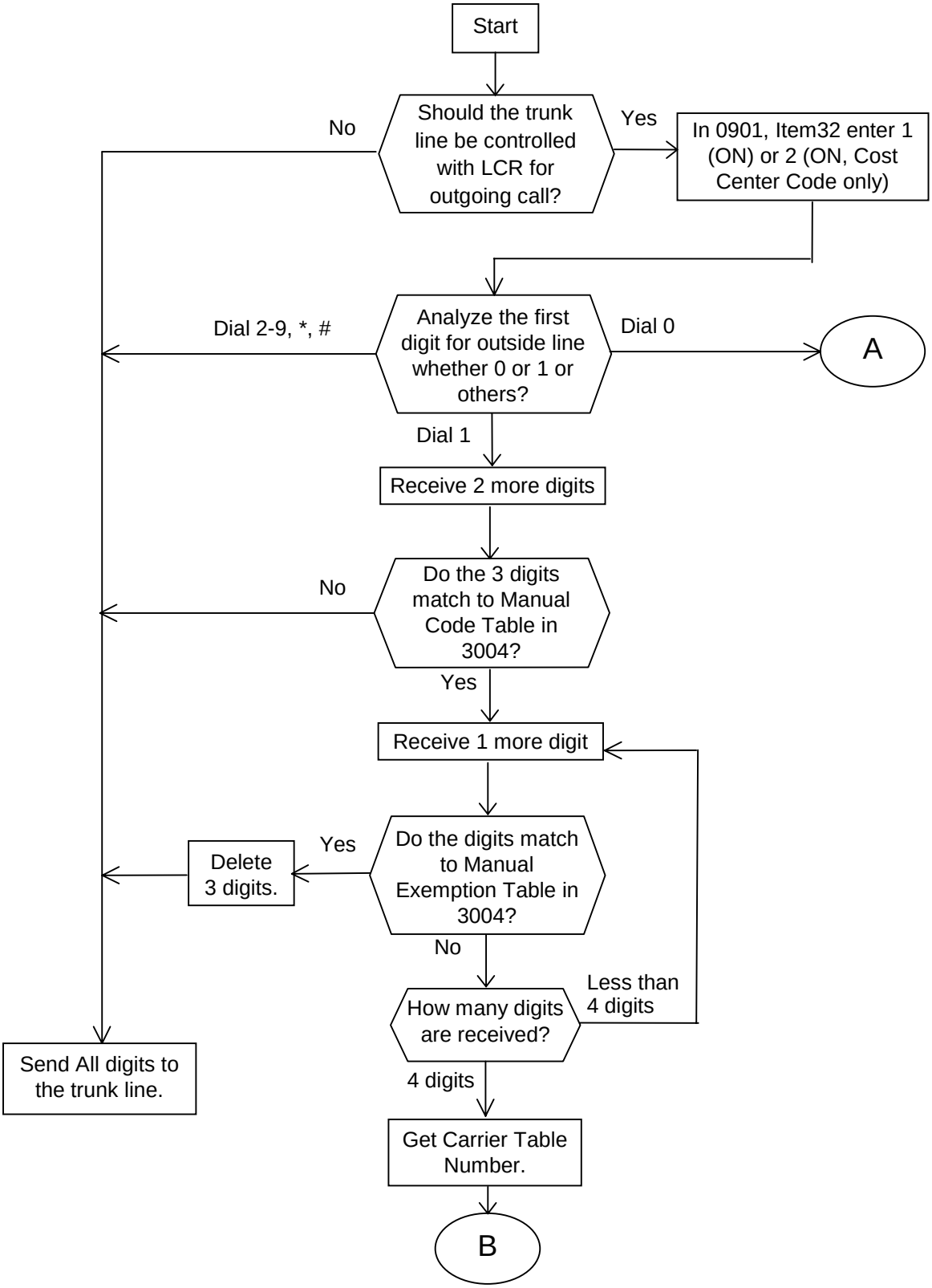
> 3003 – Authorization Code Table

> 3004 – Manual Code Table

> 3005 – Manual Exemption Table

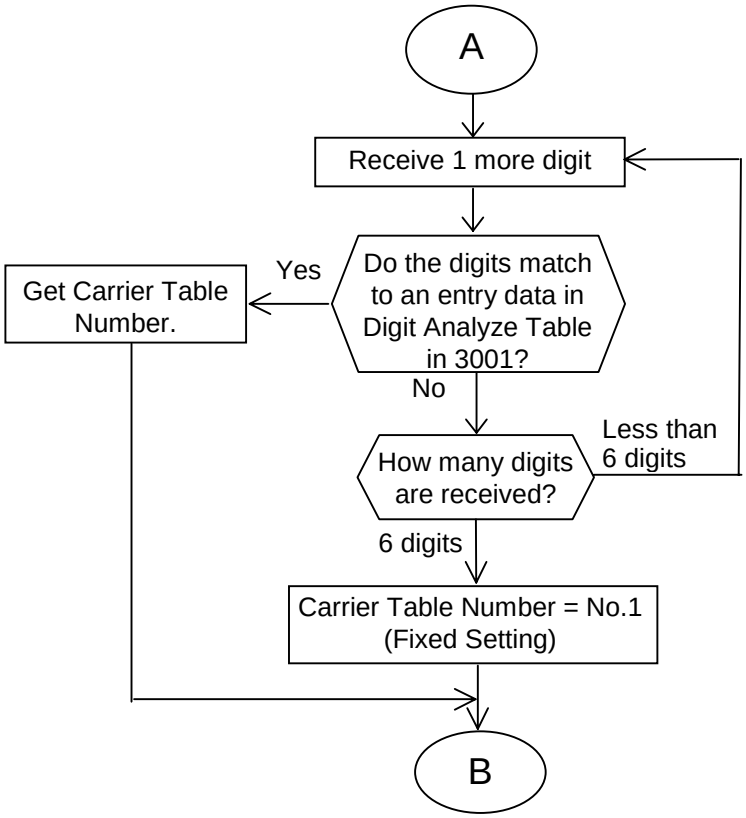
LCR (Least Cost Routing) (Cont'd)

Programming (Cont'd)


Start
Should the trunk line be controlled with LCR for outgoing call?
No
Yes
In 0901, Item32 enter 1 (ON) or 2 (ON, Cost Center Code only)
Analyze the first digit for outside line whether 0 or 1 or others?
Dial 2-9, *, #
Dial 0
A
Dial 1
Receive 2 more digits
Do the 3 digits match to Manual Code Table in 3004?
No
Yes
Receive 1 more digit
Do the digits match to Manual Exemption Table in 3004?
Yes
Delete 3 digits.
No
How many digits are received?
Less than 4 digits
4 digits
Send All digits to the trunk line.
Get Carrier Table Number.
B

LCR (Least Cost Routing) (Cont'd)

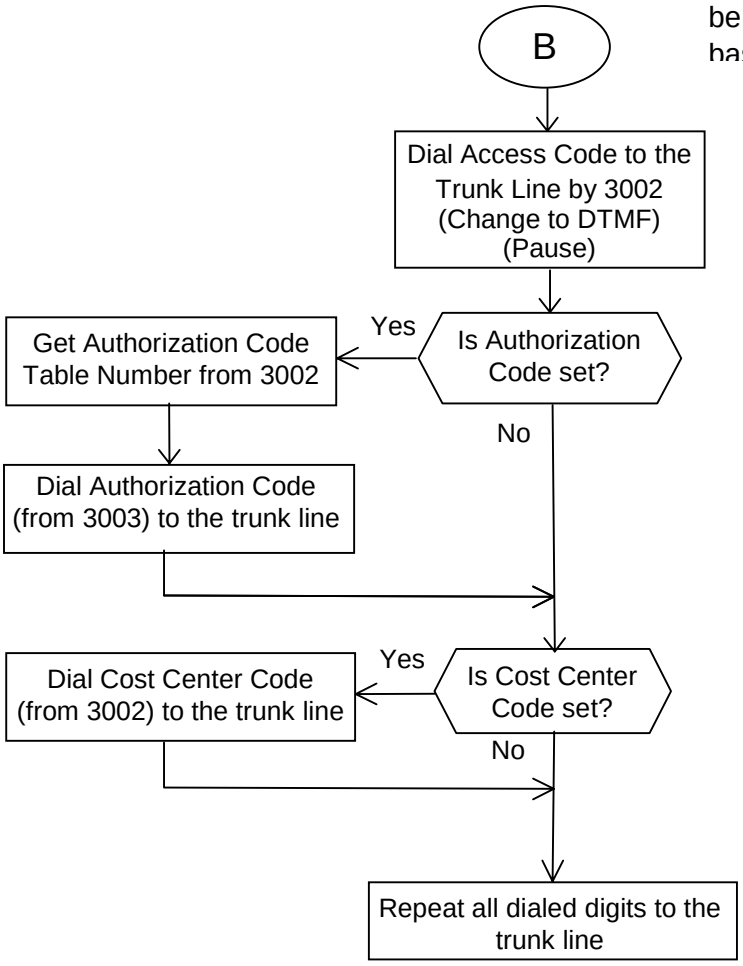
Programming (Cont'd)


A
Receive 1 more digit
Do the digits match to an entry data in Digit Analyze Table in 3001?
Yes
Get Carrier Table Number.
No
How many digits are received?
Less than 6 digits
6 digits
Carrier Table Number = No.1 (Fixed Setting)
B

LCR (Least Cost Routing) (Cont'd)

Programming (Cont'd)

This part of programming shall be applied to UK market basically


B
Dial Access Code to the Trunk Line by 3002 (Change to DTMF) (Pause)
Is Authorization Code set?
Yes
Get Authorization Code Table Number from 3002
No
Dial Authorization Code (from 3003) to the trunk line
Is Cost Center Code set?
Yes
Dial Cost Center Code (from 3002) to the trunk line
No
Repeat all dialed digits to the trunk line

Related Features

None

Operation

Normal outgoing operations by user.

Line Preference

Description

Line Preference determines how a keyset user places and answers calls.

There are two types of Line Preference: Incoming Line Preference and Outgoing Line Preference.

Incoming line Preference

Incoming Line Preference establishes how a keyset user answers calls.

When a call rings the keyset, lifting the handset answers either the ringing call (for Ringing Line Preference) or seizes an idle line (for Idle Line Preference). The idle line can provide either Intercom or Trunk Line dial tone (see Outgoing Line Preference below). Ringing Line Preference helps users who's primary function is to answer calls (such as a receptionist). Idle Line Preference is an aid to users who's primary function is to place calls (such as a telemarketer).

Outgoing Line Preference

Outgoing Line Preference sets how a keyset user places calls. If a keyset has Outgoing Intercom Line Preference, the user hears Intercom dial tone when they lift the handset. If a keyset has Outgoing Trunk Line Preference, the user hears Trunk Line dial tone when they lift the handset. Outgoing Line Preference also determines what happens at extensions with Idle Line Preference. The user hears either Trunk Line ("dial 9") or Intercom dial tone.

Auto-Answer of Non-Ringing Lines

With Auto-Answer of Non-Ringing Lines, an extension user can automatically answer Trunk Line calls that ring other extensions (not their own). This would help a user that has to answer calls for co-workers that are away from their desks. When the user lifts the handset, they automatically answer the ringing calls based on Trunk Line Group Routing programming. The extension user's own ringing calls, however, always have priority over calls ringing other co-worker's extensions.

Conditions

If a keyset extension has more than one call ringing its line keys, Ringing Line Preference answers the calls on a first-in first-answered basis.

Line Preference (Cont'd)

Default Setting

- Ringing Trunk Line calls have answer priority over ringing Intercom calls.
- Trunk Line doesn't ring extensions.
- All extensions have full access to all Trunk Lines.
- Extension users hear Intercom dial tone when they lift the handset.
- Auto-Answer of Non-Ringing Lines not set.

Options

None

Programming

> 0401 – System Options, Part A, Item 8: Priority for incoming call
Determine if ringing Intercom calls (0) or ringing Trunk Line calls should have answer priority. See the table below for interaction.

> 0401 – System Options, Part A, Item 12: Auto Answer to Incoming Call from Extension
Enable Idle (0) or Ringing (1) Line Preference for Intercom calls. See the table below for interaction.

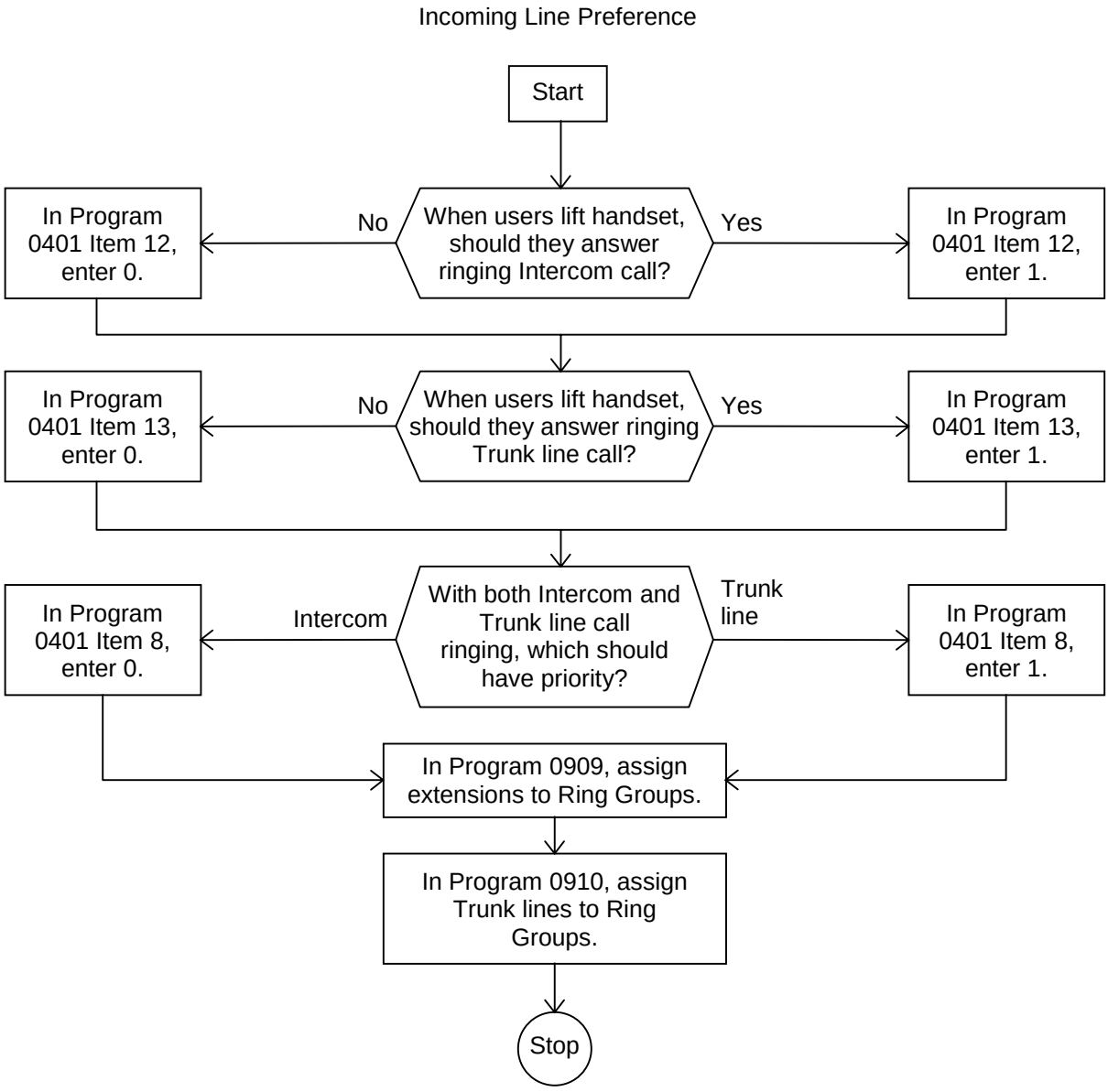
> 0401 – System Options, Part A, Item 13: Auto answer to incoming Trunk line call
Enable Idle (0) or Ringing (1) Line Preference for Trunk line calls. See the table below for interaction.

Program 0401		Ringing Intercom Call	Ringing Trunk Call	Lifting the handset....
Item 12 (Intercom Preference)	Item 12 (Intercom Preference)			
0	0	X	X	Seizes idle line appearance.
0	0	X	—	Seizes idle line appearance.
0	0	—	X	Seizes idle line appearance.
0	1	X	X	If Program 0401 Item 8 is 1, answers ringing trunk. If Program 0401 Item 8 is 0, seizes idle line appearance.
0	1	X	—	If Program 0401 Item 8 is 1, answers ringing trunk. If Program 0401 Item 8 is 0, seizes idle line appearance.
0	1	—	X	Answers ringing trunk.
1	0	X	X	Seizes idle line appearance.
1	0	X	—	Answers ringing line appearance.
1	0	—	X	Seizes idle line appearance.
1	1	X	X	If Program 0401 Item 8 is 1, answers ringing trunk. Intercom call then rings second line appearance. If Program 0401 Item 8 is 0, answers ringing line appearance.
1	1	X	—	Answers ringing intercom call. (Line appearance).
1	1	—	X	Answers ringing line appearance.

<Chart A>

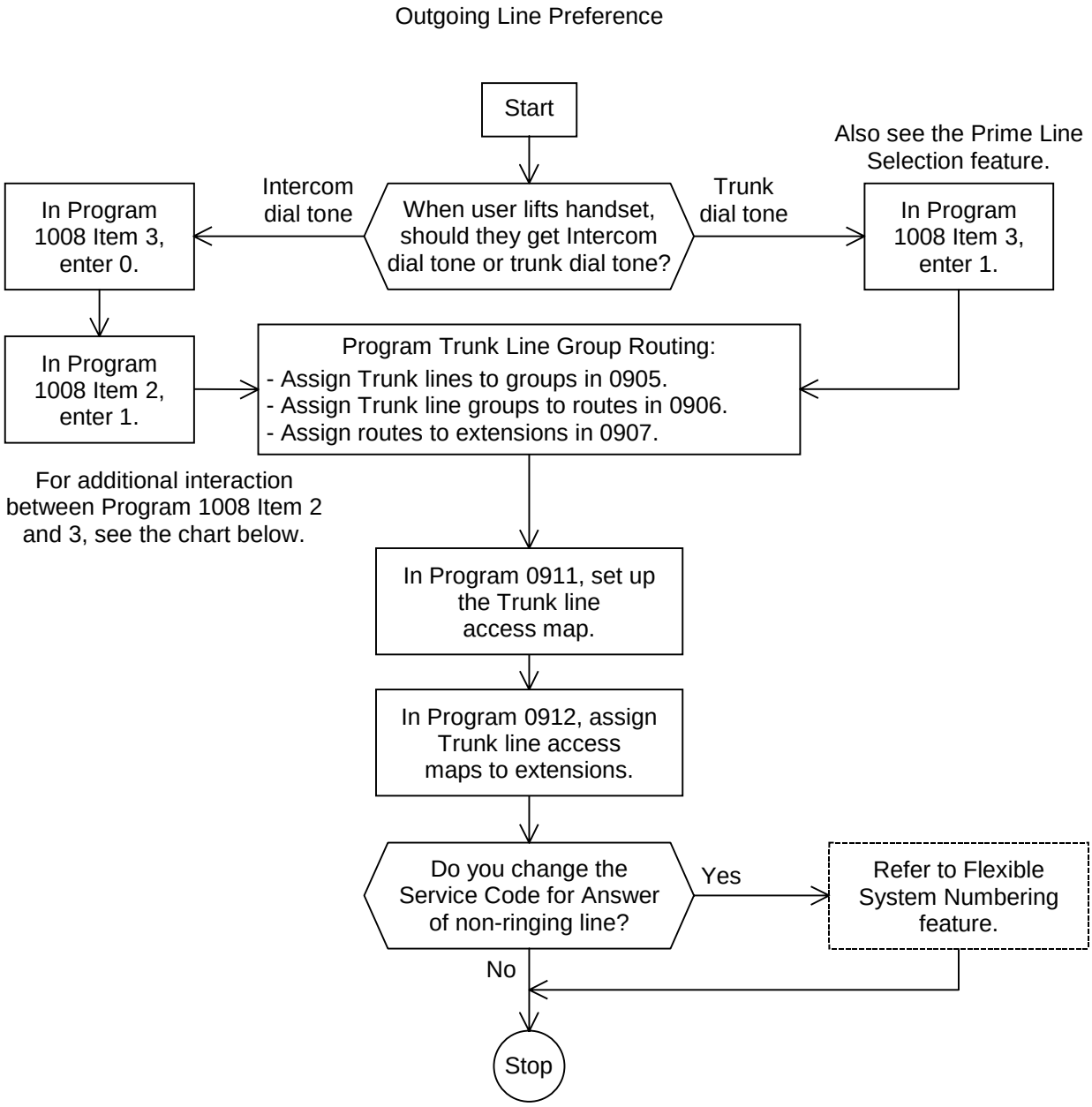
Line Preference (Cont'd)

Programming (Cont'd)


Incoming Line Preference
Start
When users lift handset, should they answer ringing Intercom call?
No
Yes
In Program 0401 Item 12, enter 0.
In Program 0401 Item 12, enter 1.
When users lift handset, should they answer ringing Trunk line call?
No
Yes
In Program 0401 Item 13, enter 0.
In Program 0401 Item 13, enter 1.
With both Intercom and Trunk line call ringing, which should have priority?
Intercom
Trunk line
In Program 0401 Item 8, enter 0.
In Program 0401 Item 8, enter 1.
In Program 0909, assign extensions to Ring Groups.
In Program 0910, assign Trunk lines to Ring Groups.
Stop

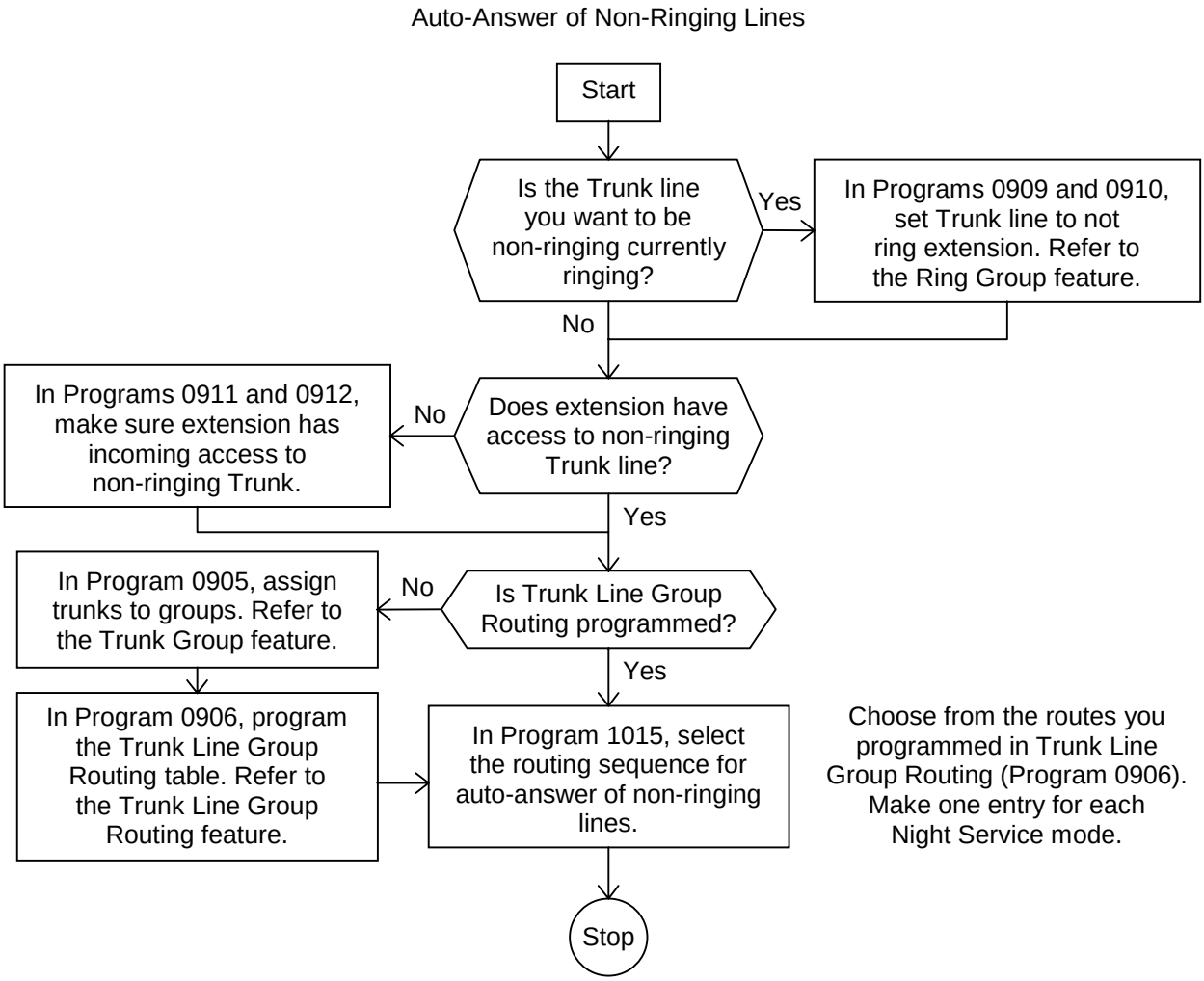
Line Preference (Cont’d)

Programming (Cont'd)


Outgoing Line Preference
Start
When user lifts handset, should they get Intercom dial tone or trunk dial tone?
Intercom dial tone
Trunk dial tone
In Program 1008 Item 3, enter 0.
In Program 1008 Item 3, enter 1.
Also see the Prime Line Selection feature.
In Program 1008 Item 2, enter 1.
Program Trunk Line Group Routing:
- Assign Trunk lines to groups in 0905.
- Assign Trunk line groups to routes in 0906.
- Assign routes to extensions in 0907.
For additional interaction between Program 1008 Item 2 and 3, see the chart below.
In Program 0911, set up the Trunk line access map.
In Program 0912, assign Trunk line access maps to extensions.
Do you change the Service Code for Answer of non-ringing line?
Yes
Refer to Flexible System Numbering feature.
No
Stop

Line Preference (Cont'd)

Programming (Cont'd)


Auto-Answer of Non-Ringing Lines
Start
Is the Trunk line you want to be non-ringing currently ringing?
Yes
In Programs 0909 and 0910, set Trunk line to not ring extension. Refer to the Ring Group feature.
No
Does extension have access to non-ringing Trunk line?
No
In Programs 0911 and 0912, make sure extension has incoming access to non-ringing Trunk.
Yes
Is Trunk Line Group Routing programmed?
No
In Program 0905, assign trunks to groups. Refer to the Trunk Group feature.
Yes
In Program 1015, select the routing sequence for auto-answer of non-ringing lines.
Choose from the routes you programmed in Trunk Line Group Routing (Program 0906). Make one entry for each Night Service mode.
In Program 0906, program the Trunk Line Group Routing table. Refer to the Trunk Line Group Routing feature.
Stop

Line Preference (Cont'd)

Programming (Cont'd)

> 0511 – Service Code Setup, Part A
Item 94: Answer of non-ringing lines
Assign a service code of answer of non-ringing lines.

> 0905 – Trunk Line Groups
For Auto-Answer of Non-Ringing Lines, assign Trunk Line to Trunk Line groups. This is part of Trunk Line Group Routing programming.

> 0906 – Trunk Line Group Routing (Dial 9)
For Auto Answer of Non-Ringing Lines, program the Trunk Line Group Routing table. Auto Answer uses this table to determine the answer sequence for ringing calls.

> 0909 – Trunk Line Group Routing for Extension
Assign extension to ring groups (1-16). Auto-Answer for Non-Ringing Lines only works for Trunk Lines that do not ring an extension.

> 0910 – Trunk Line Ring Group Assignment
Assign Trunk Line to ring groups (1-16). Auto-Answer for Non-Ringing Lines only works for Trunk Line that does not ring an extension.

> 0911 – Trunk Line Access Map Assignment
For Outgoing Line Preference and Auto-Answer of Non-Ringing Lines, set up the Trunk Line access maps (1-16).

> 0912 – Extension Access Map Assignment
For Outgoing Line Preference and Auto-Answer of Non-Ringing Lines, assign Trunk Line access maps to extensions.

> 1008 – Basic Extension Port Setup (Part B), Item 2: Auto Extension Size
Enable (1) or disable (0) Outgoing Intercom Line Preference for extensions. See the table below for interaction.

Outgoing Line Preference (Program 1008, item 2 and 3)		
Item 2	**Item 3**	**After lifting handset at idle phone...**
0	0	You hear nothing.
0	1	You hear trunk dial tone (follows "dial 9" routing).
1	0	You hear intercom dial tone.
1	1	You hear trunk dial tone (follows "dial 9" routing).

<Chart B>

Line Preference (Cont'd)

Programming (Cont'd)

> 1008 – Basic Extension Port Setup (Part B), Item 3: Auto Trunk Line Size
Enable (1) or disable (0) Outgoing Trunk Line Preference for extensions.
See the table below for interaction.

> 1015 – Ringing Line Preference
For each extension, select the route that it will use for Auto-Answer for Non-Ringing Lines. The routes correspond to the Trunk Line Group Routing table set in Program 0906.

Related Features

Direct Inward Line

DILs do not affect Incoming: Line Preference operation.

Ring Groups

Trunk Line ring extensions according to Ring Group programming.

Trunk Line Group Routing

If an extension gets Trunk Line dial tone when the user lifts the handset, the system uses the "dial 9" routing to select the Trunk Line.

Operation

To answer a ringing call if your phone has Ringing Line Preference:

1. Refer to <Chart A>.

To place a call if your phone has Outgoing Line Preference:

1. Refer to <Chart B>.

Long Conversation Cutoff

Description

This system can forcedly disconnect for Trunk Line caller that they have been on the call longer duration. Setting of Long Conversation Cutoff needs for extension and Trunk line.

There are two types of Long Conversation Cutoff: One of the conversation Cutoff for incoming call, another one for outgoing call.

Conditions

This feature available for key telephone and single line telephone.

Default Setting

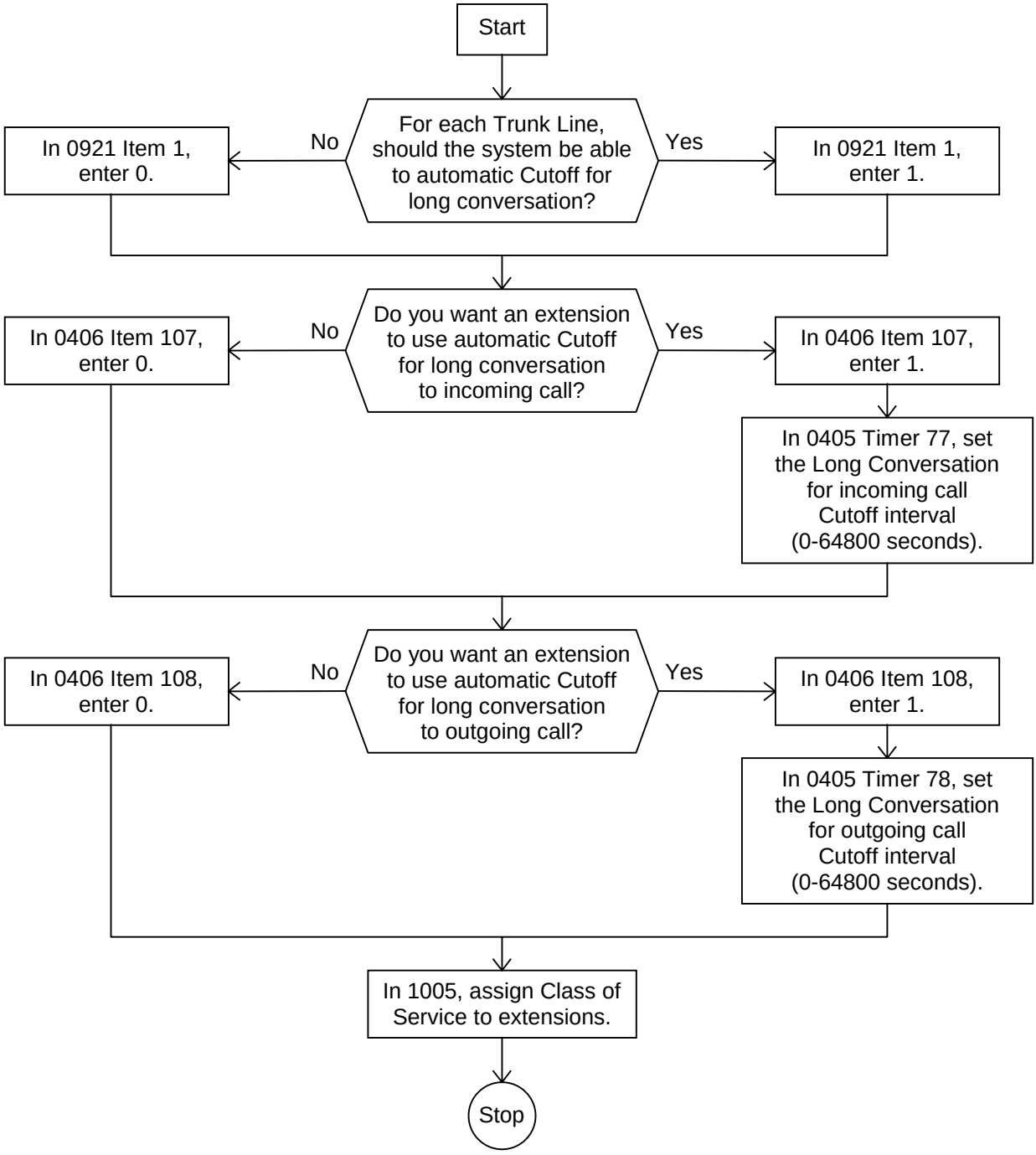
- An extension's Class of Service does not permit it to be assigned long conversation Cutoff for incoming.
- An extension's Class of Service does not permit it to be assigned long conversation Cutoff for outgoing.
- A trunk port's condition does not permit it to be assigned long conversation Cutoff for incoming.
- A trunk port's condition does not permit it to be assigned long conversation Cutoff for outgoing.
- The long conversation Cutoff timer for incoming is no setting.
- The long conversation Cutoff timer for outgoing is no setting.

Options

None

Long Conversation Cutoff (Cont'd)

Programming


Start
For each Trunk Line, should the system be able to automatic Cutoff for long conversation?
No
In 0921 Item 1, enter 0.
Yes
In 0921 Item 1, enter 1.
Do you want an extension to use automatic Cutoff for long conversation to incoming call?
No
In 0406 Item 107, enter 0.
Yes
In 0406 Item 107, enter 1.
In 0405 Timer 77, set the Long Conversation for incoming call Cutoff interval (0-64800 seconds).
Do you want an extension to use automatic Cutoff for long conversation to outgoing call?
No
In 0406 Item 108, enter 0.
Yes
In 0406 Item 108, enter 1.
In 0405 Timer 78, set the Long Conversation for outgoing call Cutoff interval (0-64800 seconds).
In 1005, assign Class of Service to extensions.
Stop

Long Conversation Cutoff (Cont'd)

Programming (Cont'd)

> 0405 – System Timers,
Item (Timer) 77: Long conversation Cutoff timer for incoming

After a user answers a Trunk Line call, the system forcedly disconnect for incoming Trunk line after the interval (0-64800 seconds).

> 0405 – System Timers,
Item (Timer) 78: Long conversation Cutoff timer for outgoing

After a user places a Trunk Line call, the system forcedly disconnect for outgoing Trunk line after the interval (0-64800 seconds).

> 0406 – Class of Service Options,
Item 107: Long conversation Cutoff for incoming

In an extension's Class of Service, enable (1) or disable (0) long conversation Cutoff for incoming.

> 0406 – Class of Service Options,
Item 108: Long conversation Cutoff for outgoing

In an extension's Class of Service, enable (1) or disable (0) long conversation Cutoff for outgoing.

> 0921 – Basic Trunk Line Port Setup, Part B
Item 1 Long conversation Cutoff

For each Trunk line, allow (1) or prevent (0) long conversation Cutoff.

> 1005 – Class of Service for Extension

Assign a class of service (1-10) to an extension.

Related Features

None

Operation

None

Long Conversation Warning

Description

The system can broadcast warning tones to a Trunk Line caller warning them that they have been on the call too long. The tones are just a reminder -- the user can disregard the tones and continue talking if they choose. The outside caller does not hear the warning tones. In addition, warning tones do not occur for Intercom calls and incoming Trunk Line calls.

There are two types of warning tones: Alarm Tone 1 and Alarm Tone 2.

Alarm Tone 1 is the first set of tones that occur after the user initially places a Trunk Line call. Alarm Tone 2 broadcasts periodically after Alarm Tone 1 as a continued reminder. Each alarm tone consists of three short beeps.

Conditions

This feature available for key telephone.

Default Setting

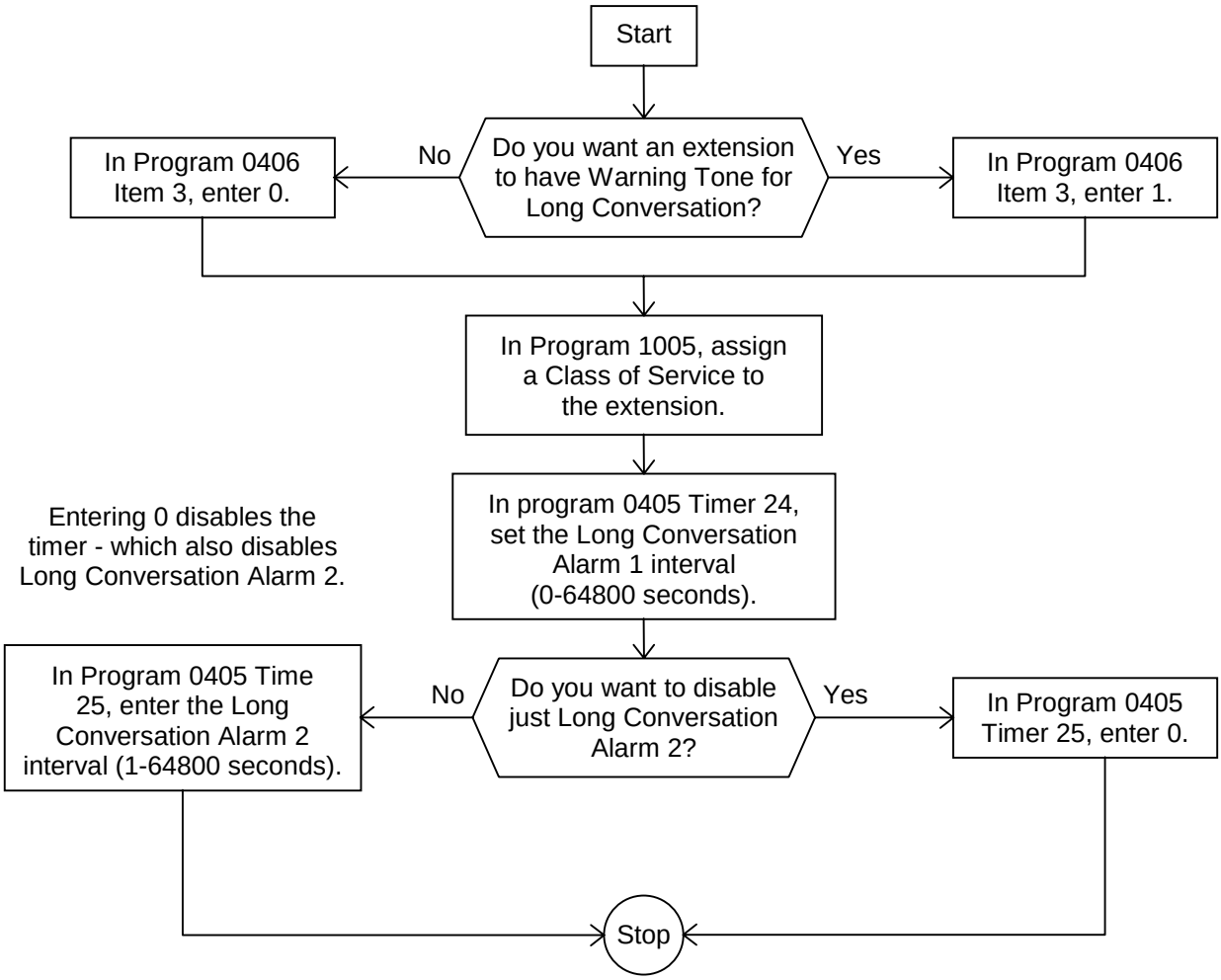
- The first warning tone occurs after 170 seconds.
- Additional warning tones occur every 180 seconds.
- An extension's Class of Service enables Long Conversation Warning.

Options

None

Long Conversation Warning (Cont'd)

Programming


Start
Do you want an extension to have Warning Tone for Long Conversation?
No
In Program 0406 Item 3, enter 0.
Yes
In Program 0406 Item 3, enter 1.
In Program 1005, assign a Class of Service to the extension.
In program 0405 Timer 24, set the Long Conversation Alarm 1 interval (0-64800 seconds).
Entering 0 disables the timer - which also disables Long Conversation Alarm 2.
Do you want to disable just Long Conversation Alarm 2?
No
In Program 0405 Time 25, enter the Long Conversation Alarm 2 interval (1-64800 seconds).
Yes
In Program 0405 Timer 25, enter 0.
Stop

Long Conversation Warning (Cont'd)

Programming (Cont'd)

Refer to Programming Flowchart on the following page.

> 0405 – System Timers, Item (Timer) 24: Long conversation alarm 1
After a user places a Trunk Line call, the system sends the first warning tone to their extension after this interval (0-64800 seconds).

> 0405 – System Timers, Item (Timer) 25: Long conversation alarm 2
After hearing the first warning tone, the system sends the first warning tones after this interval (0-64800 seconds). The warning tones continue, spaced by this interval, until the user hangs up.

> 0406 – COS Options, Item 3: Long conversation alarm
In an extension's Class of Service, enable (1) or disable (0) Long Conversation Warning.

> 1005 – Class of Service for Extension
Assign a Class of Service (1-10) to an extension.

Related Features

Trunk Line Calls, Answering

Long Conversation Warning does not occur for incoming Trunk Line calls.

Trunk Line Calls, Placing/Toll Restriction

Long Conversation Warning occurs for all outgoing Trunk Line calls, regardless of how they are placed or other outgoing restrictions.

Intercom

Long Conversation Warning does not occur for Intercom calls.

Operation

Long Conversation Warning is automatic if programmed.

Meet Me Paging Answer

Description

Meet Me Paging Answer allows an extension user to Page a co-worker and meet with them on a Page zone. The Paging zone is busy to other users while the meeting takes place. Meet Me

Paging is a good way to talk to a co-worker when their location is unknown. If the co-worker can hear the Page, they can join in the conversation.

Conditions

This feature available for key telephone and single line telephone.

Meet Me Paging Answer only permits two-party conversations.

Default Setting

- Meet Me Paging Answer Time is 90 seconds.
- An extension's Class of Service permits initiating Meet Me Paging Answer.
- No Paging keys assigned.

Options

(DX2E-4PGDU-S1: When you use Meet Me External Paging.)

Programming

Note: For additional programming information on Paging, refer to the Paging External and Paging Internal features.

> 0511 – Service Code Setup, Part A
> Item 44: Meet me answer to specified internal group paging

Assign a service code of Meet me answer to specified internal group paging.

> 0511 – Service Code Setup, Part A
> Item 45: Meet me answer to external paging

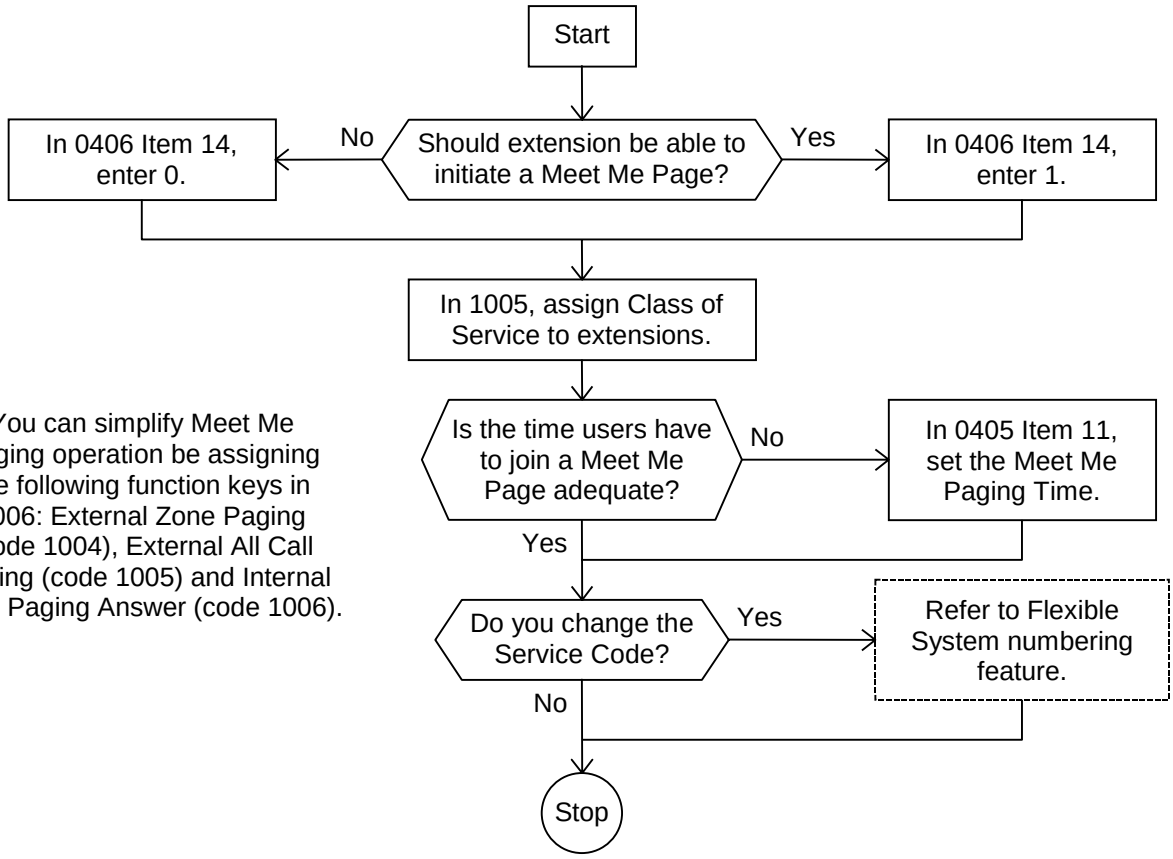
Assign a service code of Meet me answer to external paging.

> 0511 – Service Code Setup, Part A
> Item 46: Meet me answer to internal paging

Assign a service code of Meet me answer to internal paging.

Meet Me Paging Answer (Cont'd)

Programming (Cont'd)


Start
Should extension be able to initiate a Meet Me Page?
No
In 0406 Item 14, enter 0.
Yes
In 0406 Item 14, enter 1.
In 1005, assign Class of Service to extensions.
Is the time users have to join a Meet Me Page adequate?
No
In 0405 Item 11, set the Meet Me Paging Time.
Yes
Do you change the Service Code?
Yes
Refer to Flexible System numbering feature.
No
Stop

You can simplify Meet Me Paging operation be assigning the following function keys in 1006: External Zone Paging (code 1004), External All Call Paging (code 1005) and Internal Zone Paging Answer (code 1006).

Meet Me Paging Answer (Cont'd)

Programming (Cont'd)

> 1005 – Class of Service for Extension

Assign a Class of Service (1-10) to an extension.

> 1006 – Programming Function Keys

Assign function keys for External Zone Paging (code 1004 + zone), External All Call Paging (code 1005) and Internal Paging Zone Answer (code 1006 + zone).

Related Features

Meet Me Paging Answer Conference

An extension user can set up a Conference with their current call and up to six other inside parties.

Programmable Function Key

Internal and External Paging keys simplify Meet Me Paging Answer operation.

Operation

Meet Me External Page

<Key Telephone>

To make a Meet Me External Page:

1. Press idle CL key.
2. Dial 803( ). And then dial the External Paging Group code (1-4 or 0 for all Call).

   OR

   Press the External Paging Zone key (PGM 1006 or SC 851: 1004 & 1005).
3. Announce the zone.

To join a Meet Me External Page:

1. Press idle CL key.
2. Dial 865( ).
3. Dial the announced External Paging Zone (0-4).

   You connect to the other party.

<Single Line Telephone>

To make a Meet Me External Page:

1. Off hook.
2. Dial 803( ). And then the External Paging Group Code (1-4 or 0 for All Call).
3. Announce the zone.

Meet Me Paging Answer (Cont'd)

Operation

<Single Line Telephone> (Cont'd)

To join a Meet Me External Page:

1. Off hook.
2. Dial 865( ).
3. Dial the announced External Paging Zone (0-4).
   You connect to the other party.

Meet Me Internal Page

<Key Telephone>

To make a Meet Me Internal Page:

1. Press idle CL key.
2. Dial 801( ).
3. Dial the Internal Paging Group code (1-8).
4. Announce the zone.

To join a Meet Me Internal Page:

1. Press idle CL key.
2. Dial 863( ) (if your extension is in the group called).
   OR
   Dial 864( ) and the group number (if your extension is not in the group called).
   OR
   Press the Internal Paging Group Answer key (PGM 1006 or SC 851: 1010) if your extension is in the group called.

<Single Line Telephone>

To make a Meet Me Internal Page:

1. Off hook.
2. Dial 801 ( ).
3. Dial the Internal Paging Group code (1-8).
4. Announce the zone.

To join a Meet Me Internal Page:

1. Off hook.
2. Dial 863( ) (if your extension is in the group called).
   OR
   Dial 864( ) and the group number (if your extension is not in the group called).

Meet Me Paging Conference

Description

With Meet Me Paging Conference, an extension user can set up a Conference with their current call and up to six other inside parties. Each party joins the Conference by dialing a Meet Me Paging code. Meet Me Conference lets extension users have a telephone meeting – Without leaving the office.

The system permits up to eight parties to join in a Meet Me Paging Conference.

Conditions

This feature available for key telephone and single line telephone.

Default Setting

- The system allows 8 four-party conferences.
- Meet Me Paging Conference Time is 90 seconds.
- An extension's Class of Service permits initiating Meet Me Paging Conference.
- No Conference or Paging keys assigned.

Options

DX2E-PGDU-S1: When you use Meet Me External Paging Conference feature.

Meet Me Paging Conference (Cont'd)

Programming

Note: For additional programming information on Paging and Conference, refer to the Paging Internal, Paging External and Conference features.

> 0302 – Music on Hold and Conference Setup
Set the Conference mode. The system allows either 8 four-party conferences (0) or 4 eight-party conferences (1) per option card.

> 0405 – System Timers, Item 9: Privacy Release timer
Set the Meet Me Paging Conference Time (0-64800 seconds). Once the user initiates Meet Me Paging Conference, the system waits this interval for the Paged party to join the conversation.

> 1005 – Class of Service for Extension
Assign a Class of Service (1-10) to an extension.

> 1006 – Programming Function Keys
Assign function keys for Conference (code 1016), External Zone Paging (code 1004), External all Call Paging (code 1005) and Internal Paging Zone Answer (code 1006).

Related Features

Meet Me paging

An extension user can have a telephone meeting with a co-worker on a Page zone.

Conference

An extension user can be conference with another extension user and outside party.

Meet Me Paging Conference (Cont'd)

Operation

<Key Telephone>

Meet Me External Conference

To make a Meet Me External Paging Conference:

1. While on a call, press Conference key (PGM 1006 or SC 851: 1016).
2. Dial 803( ) and the External Paging Group code (1-4 or 0 for All Call)
   OR
   Press Page key (PGM 1006 or SC 851: 1004 & 1005).
3. Announce the zone.
4. When co-worker answers your page, press the Conference key twice.
5. Repeat steps 1-4 for each co-worker you want to add.

To join a Meet Me External Conference:

1. Press idle CL key.
2. Dial 865( ).
3. Dial the announced External Paging Zone code (0-4).
   You connect to the other parties.

Meet Me Internal Conference:

To make a Meet Me Internal Conference:

1. While on a call, press Conference key (PGM 1006 or SC 851: 1016).
2. Dial 863( ) (if your extension is in the group called).
   OR
   Dial 864( ) and the group number (if your extension is not in the group called).
   OR
   Press the Internal Paging group Answer key (PGM 1006 or SC851: 1010) if your extension is in the group called.

<Single Line Telephone>

Meet Me External Conference

To make a Meet Me External Paging Conference:

1. While on a call
2. Hook/Flash and dial 826( ).
3. Dial 803( ) and the External Paging Group code (1-4 or 0 for All Call)
4. Announce the zone.
5. When co-worker answers your page, hook/flash twice.
6. Repeat steps 2-4 for each co-worker you want to add.

Meet Me Paging Conference (Cont'd)

Operation (Cont'd)

<Single Line Telephone> (Cont'd)

Meet Me External Conference

To join a Meet Me External Conference:

1. Off hook.
2. Dial 865( ).
3. Dial the announced External Paging Zone code (0-4).
   You connect to the other parties.

Meet Me Internal Conference:

To make a Meet Me Internal Conference:

1. While on a call
2. Hook/Flash and dial 826( ).
3. Dial 863( ) (if your extension is in the group called).
   OR
   Dial 864( ) and the group number (if your extension is not in the group called).

Meet Me Paging Transfer

Description

If a user wants to Transfer a call to a co-worker but they don't know where the co-worker is, they can use Meet Me Paging Transfer. With Meet Me Paging Transfer, the user can Page the co-worker and have the call automatically Transfer when the co-worker answer the Page. Since Meet Me Paging Transfer works with both Internal and External Paging, a call can be quickly extended to a co-worker anywhere in the facility.

Conditions

This feature available for key telephone and single line telephone.

Meet Me Paging Transfer only permits two-party conversations.

Default Setting

- Meet Me Paging Time is 90 seconds.
- An extension's Class of Service Permits initiating Meet Me Paging.
- No Paging keys assigned.

Options

(DX2E-4PGDU-S1: When you use External Paging.)

Programming

Refer to the Programming Flowchart on the following page

Note: For additional programming information on Paging, refer to the Paging External and Paging Internal features.

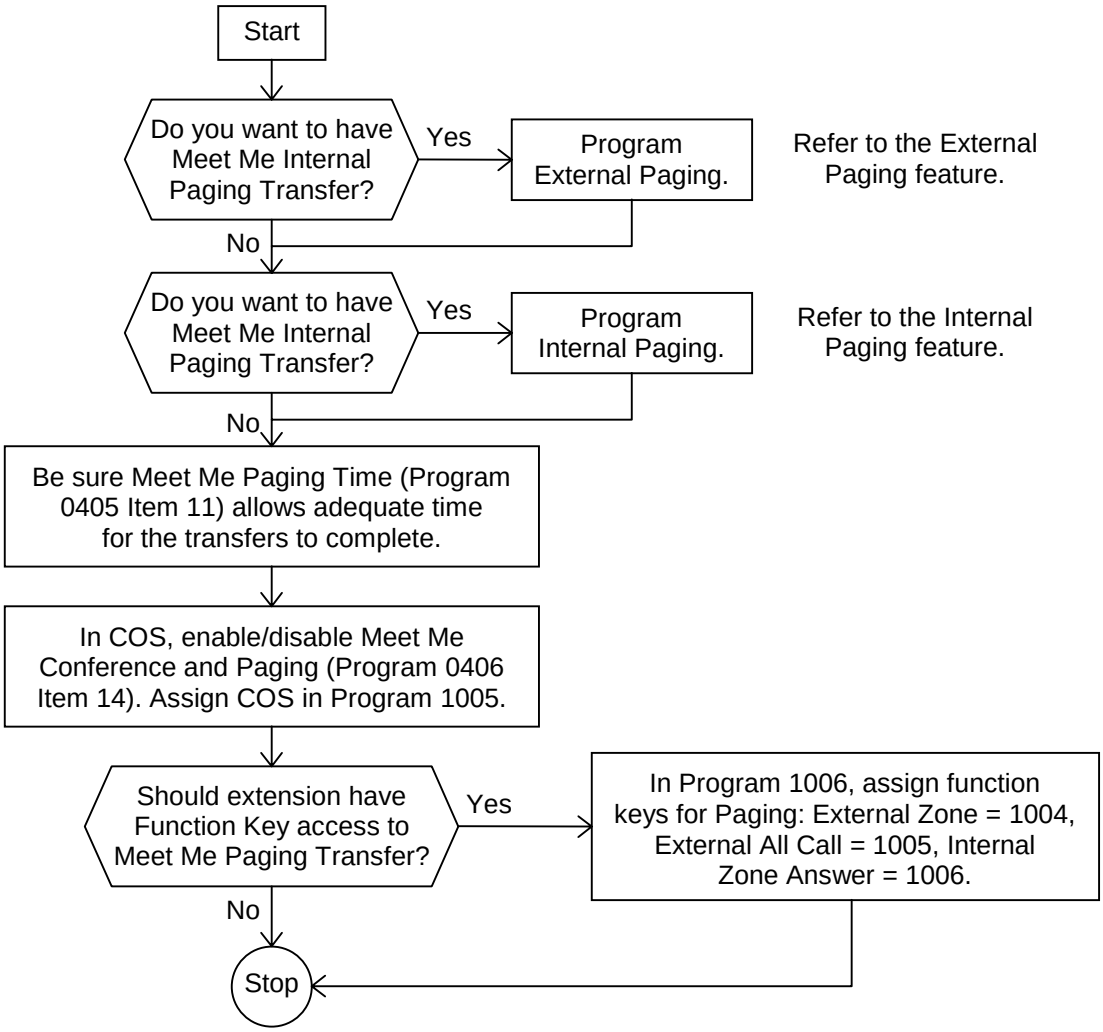
> 0406 – COS Options, Item 14: Meet Me Conference and Paging
In an extension's Class of Service, enable (1) or disable (0) an extension's ability to initiate a Meet Me Paging Transfer.

> 1005 – Class of Service for Extension
Assign a Class of Service (1-10) to an extension.

> 1006 – Programming Function Keys
Assign function keys for External Zone Paging (code 1004), External all Call Paging (code 1005) and Internal Paging Zone Answer (code 1006).

Meet Me Paging Transfer (Cont'd)

Programming (Cont'd)


Start
Do you want to have Meet Me Internal Paging Transfer?
Yes
Program External Paging.
Refer to the External Paging feature.
No
Do you want to have Meet Me Internal Paging Transfer?
Yes
Program Internal Paging.
Refer to the Internal Paging feature.
No
Be sure Meet Me Paging Time (Program 0405 Item 11) allows adequate time for the transfers to complete.
In COS, enable/disable Meet Me Conference and Paging (Program 0406 Item 14). Assign COS in Program 1005.
Should extension have Function Key access to Meet Me Paging Transfer?
Yes
In Program 1006, assign function keys for Paging: External Zone = 1004, External All Call = 1005, Internal Zone Answer = 1006.
No
Stop

Meet Me Paging Transfer (Cont'd)

Related Features

Meet Me Paging

An extension user can Page a co-worker and meet with them on a Page zone.

Meet Me Paging Conference

An extension user can set up a Conference with their current call and up to six other inside parties.

Paging, External

With External Paging, an extension user can broadcast announcement over Paging equipment connected to external Paging zones.

Paging, Internal

Internal Paging lets extension users broadcast announcements to other keysets.

Operation

Meet Me External Paging Transfer

<Key Telephone>

To make a Meet Me External Paging Transfer:

1. Press HOLD.
2. Dial 803( ). And then dial the External Paging Group code (1-4 or 0 for All Call).

   OR

   Press the External Paging Zone key (PGM 1006 or SC 851: 1004 & 1005).
3. Announce the call.
4. When Paged party answers, hang up to Transfer the call to them.

To join a Meet Me External Paging Transfer:

1. Press idle CL key.
2. Dial 865( ).
3. Dial the announced External Paging Zone (0-4).

   You connect to the Paging party.
4. Stay on the line.

   After the Paging party hangs up, you connect to the transferred call.

Meet Me Paging Transfer (Cont'd)

Operation (Cont'd)

Meet Me External Paging Transfer (Cont'd)

<Single Line Telephone>

To make a Meet Me External Paging Transfer:

1. Hook/Flash.
2. Dial 803( ).
3. Dial the External Paging Group code (1-4 or 0 for All Call).
4. Announce the call.
5. When Paged party answers, hang up to Transfer the call to them.

To join a Meet Me External Paging Transfer:

1. Off hook.
2. Dial 865( ).
3. Dial the announced External Paging Zone (0-4).
   You connect to the Paging party.
4. Stay on the line.
   After the Paging party hangs up, you connect to the transferred call.

Meet Me Internal Paging Transfer

<Key Telephone>

To make a Meet Me Internal Paging Transfer:

1. Press HOLD.
2. Dial 801( ).
3. Dial the Internal Paging Group code (1-8).
4. Announce the call.
5. When Paged party answers, hang up to Transfer the call to them.

To join a Meet Me Internal Paging Transfer:

1. Press idle CL key.
2. Dial 863( ) (if your extension is the group called).
   OR
   Dial 864( ) and the group number (if your extension is not the group called).
   OR
   Press the Internal Paging group Answer key (PGM 1006 or SC 851: 1010) if your extension is in the group called.
3. Stay on the line.
   After the Paging party hangs up, you connect to the transferred call.

Meet Me Paging Transfer (Cont'd)

Operation (Cont'd)

Meet Me Internal Paging Transfer (Cont'd)

<Single Line Telephone>

To make a Meet Me Internal Paging Transfer:

1. Hook/Flash.
2. Dial 801( ).
3. Dial the Internal Paging Group code (1-8).
4. Announce the call.
5. When Paged party answers, hang up to Transfer the call to them.

To join a Meet Me Internal Paging Transfer:

1. Off hook.
2. Dial 863( ) (if your extension is the group called).
   OR
   Dial 864( ) and the group number (if your extension is not the group called).
   If your extension is in the group called.
3. Stay on the line.
   After the Paging party hangs up, you connect to the transferred call.

Meet Me Paging Transfer by Personal Message (VAU)

Description

Paging with Personal Message permits incoming ring status will be informed by using recorded Personal Message through external paging speaker or internal paging zone phones.

Condition

This feature is available for key telephone.

(A) If appointed paging zone is busy, system will wait until paging zone becomes idle.

(B) If busy status of paging zone or VAU channel will continue over pre-programmed duration (VAU no-answer timer), system will transfer the incoming call to pre-programmed station.

Default Setting

- All External Paging ports have gain number 1 (0 dB).
- Maximum duration of Paging announcement is 120 seconds.
- Maximum duration of personal message time is 20 seconds.
- An extension’s Class of Service permits initiating External Paging.
- An extension’s Class of Service not permit Personal message.
- All External Paging Zones are broadcasted a splash tone before the page announcement.
- Service Code for External Paging with personal message is dial 713.
- Service Code for Direct Extension call pickup is dial 715.

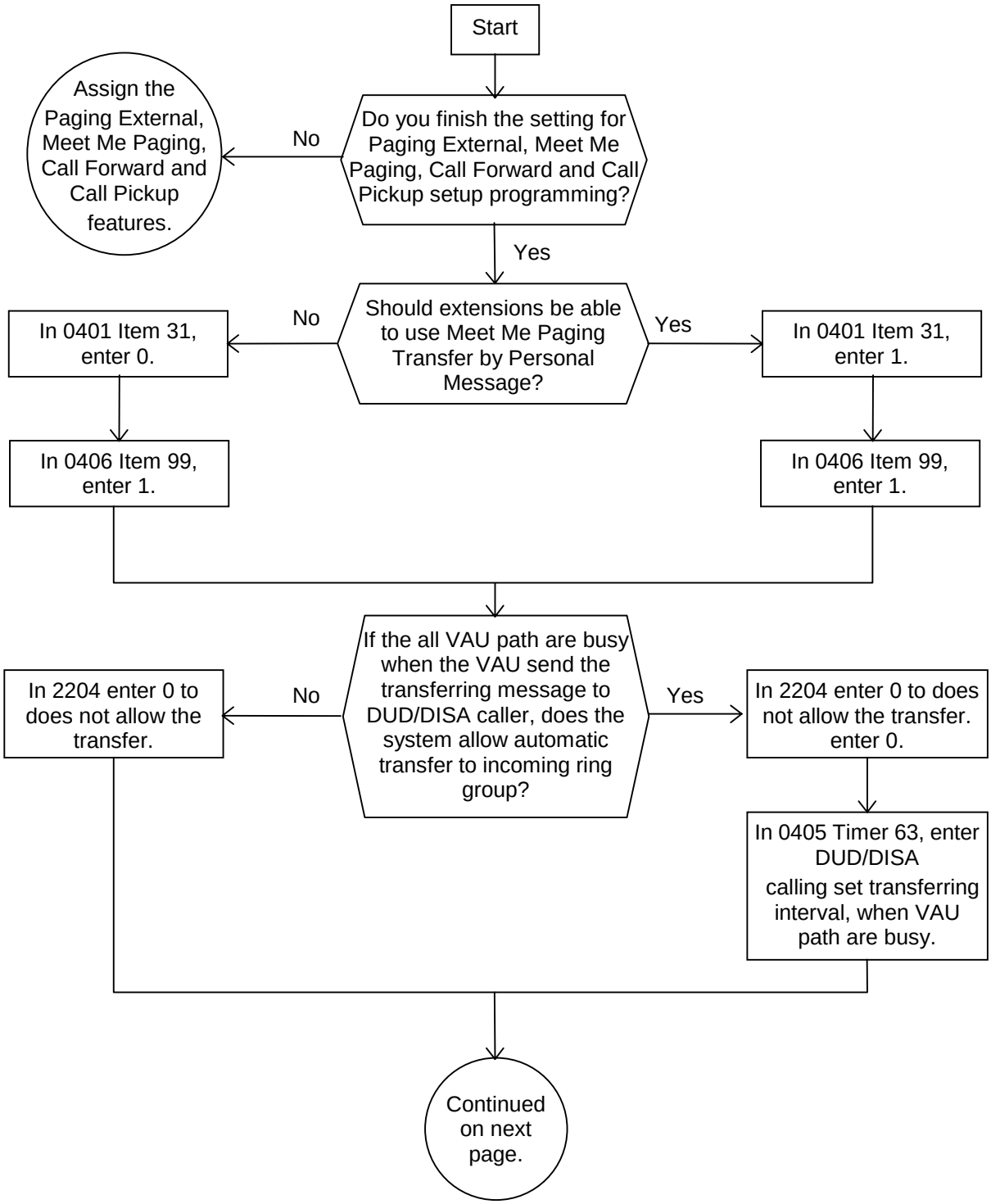
Options

DX2E-VAU-A

DX2E-4PGDU-S1 (When you use Meet Me External Paging Transfer with Personal message.)

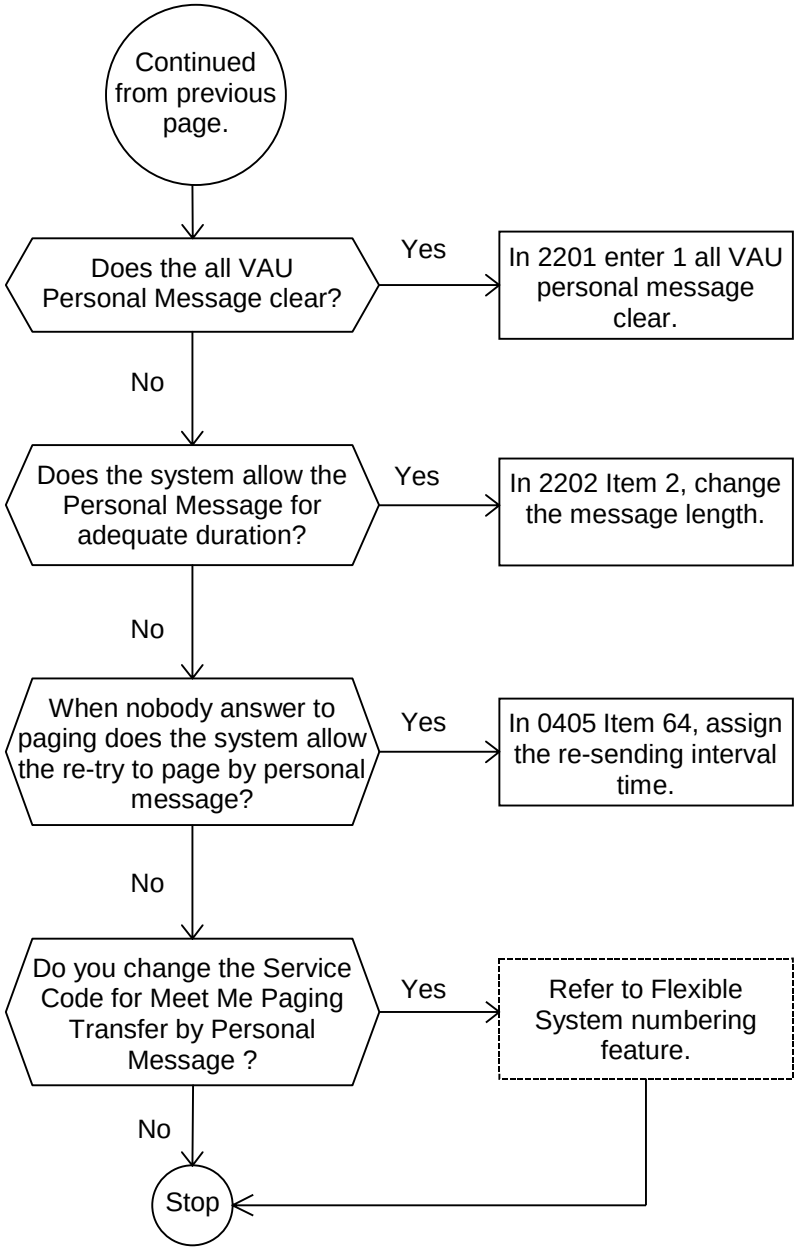
Meet Me Paging Transfer by Personal Message (VAU) (Cont'd)

Programming


Start
Do you finish the setting for Paging External, Meet Me Paging, Call Forward and Call Pickup setup programming?
No
Assign the Paging External, Meet Me Paging, Call Forward and Call Pickup features.
Yes
Should extensions be able to use Meet Me Paging Transfer by Personal Message?
No
In 0401 Item 31, enter 0.
Yes
In 0401 Item 31, enter 1.
In 0406 Item 99, enter 1.
In 0406 Item 99, enter 1.
If the all VAU path are busy when the VAU send the transferring message to DUD/DISA caller, does the system allow automatic transfer to incoming ring group?
No
In 2204 enter 0 to does not allow the transfer.
Yes
In 2204 enter 0 to does not allow the transfer. enter 0.
In 0405 Timer 63, enter DUD/DISA calling set transferring interval, when VAU path are busy.
Continued on next page.

Meet Me Paging Transfer by Personal Message (VAU) (Cont'd)

Programming (Cont'd)


Continued from previous page.
Does the all VAU Personal Message clear?
Yes
In 2201 enter 1 all VAU personal message clear.
No
Does the system allow the Personal Message for adequate duration?
Yes
In 2202 Item 2, change the message length.
No
When nobody answer to paging does the system allow the re-try to page by personal message?
Yes
In 0405 Item 64, assign the re-sending interval time.
No
Do you change the Service Code for Meet Me Paging Transfer by Personal Message ?
Yes
Refer to Flexible System numbering feature.
No
Stop

Meet Me Paging Transfer by Personal Message (VAU) (Cont'd)

Programming (Cont'd)

> 0401 – System Options, Part A, Item 31: VAU fixed message
Set the use (0) or not use (1) VAU fixed message for VAU features.
When you set to not use (1), you can not use Meet Me Paging Transfer by Personal Message feature.

> 0405 – System Timers, Part A, Item 63: VAU no-answer time (VAU)
Set the waiting time (0 – 64800 seconds) of Paging Transfer for incoming call from outside caller, when all VAU path are busy. If all VAU path are busy while waiting time,
Incoming call transfer to transferring ring group (CMD 2204).

> 0405 – System Timers, Part A,
Item 64: Message re-send duration time for paging (VAU)
Set the duration time, when no-answer to Meet Me Paging Transfer by Personal Message, re-send the personal message for paging speaker.

> 0406 – COS Options, Item 99: Personal Message (VAU)
In an extension's Class of Service, enable (1) or disable (0) an extension's ability to initiate a Meet Me Paging Transfer by Personal Message (VAU).

> 0514 – Service Code Setup, Part B, Item 3: Call forward with personal Message (VAU)
Assign a service code of call forward with personal message.

> 0514 – Service Code Setup, Part B, Item 5: direct extension call pickup
Assign a service code of direct extension call pickup.

> 2201 – VAU Reset
Erase the VAU personal message and VAU message.

> 2202 – Message length Assignment for VAU
Assign the maximum message length for VAU message and Personal message.

> 2204 – Transfer ring group Setup when VAU No Answer
Assign a transfer ring group number, when all VAU path are busy for DUD/DISA caller.

Meet Me Paging Transfer by Personal Message (VAU) (Cont'd)

Operation

Meet Me External Paging Transfer

<Key Telephone>

To active the Meet Me External Paging Transfer by Personal Message:

1. Press idle CL key.
2. Dial 713( ).
3. Hear "Please start recording <beep>".
4. Recording Personal Message. (for caller)
5. Dial 803( ).
6. Dial the External Paging Group code (1-8 or 0 for All Call).
7. Hear "Please start recording <beep>".
8. Recording Personal Message. (for paging)
9. Press SPK to hang up (Finish).

   OR

   Dial 3 (erase: go to 5-a of "To operate").

   OR

   Dial 5 (listen: go to 5-b of "To operate").

   OR

   Dial 7 (re-record: go to 5-c of "To operate").

Meet Me Paging Transfer by Personal Message (VAU) (Cont'd)

Operation (Cont'd)

<Key Telephone> (Cont'd)

To answer Meet Me Paging Transfer by Personal Message:

1. Press idle CL key.
2. Dial 715( ) and specified extension number.

To operate the Meet Me External Paging Transfer by Personal Message:

1. Press idle CL key.
2. Dial 713( ).
3. Hear "To re-record dial 7, to listen dial 5, to erase dial 3".

4-a. Dial 3 (erase).

5-a. Press SPK to hang up (Finish).

OR

Dial 5 (listen: go to 5-b).

OR

Dial 7 (re-record: go to 5-c).

4-b. Dial 5 (listen).

5-b. Listen the recorded Personal Message (for caller).

6-b. Listen the recorded Personal Message (for paging).

7-b. Press SPK to hang up (Finish).

OR

Dial 3 (erase: go to 5-a).

OR

Dial 7 (re-record: go to 5-c).

Meet Me Paging Transfer by Personal Message (VAU) (Cont'd)

Operation (Cont'd)

<Key Telephone> (Cont'd)

To active the Meet Me External Paging Transfer by Personal Message: (Cont'd)

4-c. Dial 7 (re-record).
5-c. Hear "Please start recording <beep>".
6-c. Recording Personal Message (for caller).
7-c. Dial 803( ).
8-c. Dial the External Paging Group code (1-8 or 0 for All Call).
9-c. Hear "Please start recording <beep>".
10-c. Recording Personal Message (for paging).
11-c. Press SPK to hang up (Finish).
OR
Dial 3 (erase: go to 5-a).
OR
Dial 5 (listen: go to 5-b).

Meet Me Paging Transfer by Personal Message (VAU) (Cont'd)

Operation (Cont'd)

<Single Line Telephone>

To active the Meet Me External Paging Transfer by Personal Message:

1. Off hook.
2. Dial 713( ).
3. Hear "Please start recording <beep>".
4. Recording Personal Message. (for caller)
5. Dial 803( ).
6. Dial the External Paging Group code (1-8 or 0 for All Call).
7. Hear "Please start recording <beep>".
8. Recording Personal Message. (for paging)
9. On hook (Finish).

   OR

   Dial 3 (erase: go to 5-a of "To operate").

   OR

   Dial 5 (listen: go to 5-b of "To operate").

   OR

   Dial 7 (re-record: go to 5-c of "To operate").

To answer Meet Me Paging Transfer by Personal Message:

1. Off hook.
2. Dial 715( ) and specified extension number.

To operate the Meet Me External Paging Transfer by Personal Message:

1. Off hook.
2. Dial 713( ).
3. Hear "To re-record dial 7, to listen dial 5, to erase dial 3".

4-a. Dial 3 (erase).

5-a. Press SPK to hang up (Finish).

   OR

   Dial 5 (listen: go to 5-b).

   OR

   Dial 7 (re-record: go to 5-c).

Meet Me Paging Transfer by Personal Message (VAU) (Cont'd)

Operation (Cont'd)

<Single Line Telephone> (Cont'd)

To active the Meet Me External Paging Transfer by Personal Message: (Cont'd)

4-b. Dial 5 (listen).
5-b. Listen the recorded Personal Message (for caller).
6-b. Listen the recorded Personal Message (for paging).
7-b. Press SPK to hang up (Finish).
OR
Dial 3 (erase: go to 5-a).
OR
Dial 7 (re-record: go to 5-c).

4-c. Dial 7 (re-record).
5-c. Hear "Please start recording <beep>".
6-c. Recording Personal Message (for caller).
7-c. Dial 803( ).
8-c. Dial the External Paging Group code (1-8 or 0 for All Call).
9-c. Hear "Please start recording <beep>".
10-c. Recording Personal Message (for paging).
11-c. Press SPK to hang up (Finish).
OR
Dial 3 (erase: go to 5-a).
OR
Dial 5 (listen: go to 5-b).

Meet Me Paging Transfer by Personal Message (VAU) (Cont'd)

Operation (Cont'd)

Meet Me Internal Paging Transfer

<Key Telephone>

To active the Meet Me Internal Paging Transfer by Personal Message:

1. Press idle CL key.
2. Dial 713( ).
3. Hear "Please start recording <beep>".
4. Recording Personal Message. (for caller)
5. Dial 801( ).
6. Dial the Internal Paging Group code (1-8).
7. Hear "Please start recording <beep>".
8. Recording Personal Message. (for paging)
9. Press SPK to hang up (Finish).

   OR

   Dial 3 (erase: go to 5-a of "To operate").

   OR

   Dial 5 (listen: go to 5-b of "To operate").

   OR

   Dial 7 (re-record: go to 5-c of "To operate").

To answer Meet Me Paging Transfer by Personal Message:

1. Press idle CL key.
2. Dial 715( ) and specified extension number.

To operate the Meet Me Internal Paging Transfer by Personal Message:

1. Press idle CL key.
2. Dial 713( ).
3. Hear "To re-record dial 7, to listen dial 5, to erase dial 3".

4-a. Dial 3 (erase).

5-a. Press SPK to hang up (Finish).

   OR

   Dial 5 (listen: go to 5-b).

   OR

   Dial 7 (re-record: go to 5-c).

Meet Me Paging Transfer by Personal Message (VAU) (Cont'd)

Operation (Cont'd)

<Key Telephone> (Cont'd)

To active the Meet Me Internal Paging Transfer by Personal Message: (Cont'd)

4-b. Dial 5 (listen).
5-b. Listen the recorded Personal Message (for caller).
6-b. Listen the recorded Personal Message (for paging).
7-b. Press SPK to hang up (Finish).
OR
Dial 3 (erase: go to 5-a).
OR
Dial 7 (re-record: go to 5-c).

4-c. Dial 7 (re-record).
5-c. Hear "Please start recording <beep>".
6-c. Recording Personal Message (for caller).
7-c. Dial 803( ).
8-c. Dial the Internal Paging Group code (1-8).
9-c. Hear "Please start recording <beep>".
10-c. Recording Personal Message (for paging).
11-c. Press SPK to hang up (Finish).
OR
Dial 3 (erase: go to 5-a).
OR
Dial 5 (listen: go to 5-b).

Meet Me Paging Transfer by Personal Message (VAU) (Cont'd)

Operation (Cont'd)

<Single Line Telephone>

To active the Meet Me Internal Paging Transfer by Personal Message:

1. Off hook.
2. Dial 713( ).
3. Hear "Please start recording <beep>".
4. Recording Personal Message. (for caller)
5. Dial 801( ).
6. Dial the Internal Paging Group code (1-8).
7. Hear "Please start recording <beep>".
8. Recording Personal Message. (for paging)
9. On hook (Finish).

   OR

   Dial 3 (erase: go to 5-a of "To operate").

   OR

   Dial 5 (listen: go to 5-b of "To operate").

   OR

   Dial 7 (re-record: go to 5-c of "To operate").

To answer Meet Me Paging Transfer by Personal Message:

1. Off hook.
2. Dial 715( ) and specified extension number.

To operate the Meet Me Internal Paging Transfer by Personal Message:

1. Off hook.
2. Dial 713( ).
3. Hear "To re-record dial 7, to listen dial 5, to erase dial 3".

4-a. Dial 3 (erase).

5-a. Press SPK to hang (Finish).

   OR

   Dial 5 (listen: go to 5-b).

   OR

   Dial 7 (re-record: go to 5-c).

Meet Me Paging Transfer by Personal Message (VAU) (Cont'd)

Operation (Cont'd)

<Single Line Telephone> (Cont'd)

To active the Meet Me Internal Paging Transfer by Personal Message: (Cont'd)

4-b. Dial 5 (listen).
5-b. Listen the recorded Personal Message (for caller).
6-b. Listen the recorded Personal Message (for paging).
7-b. Press SPK to hang up (Finish).
OR
Dial 3 (erase: go to 5-a).
OR
Dial 7 (re-record: go to 5-c).
4-c. Dial 7 (re-record).
5-c. Hear "Please start recording <beep>".
6-c. Recording Personal Message (for caller).
7-c. Dial 801( ).
8-c. Dial the External Paging Group code (1-8).
9-c. Hear "Please start recording <beep>".
10-c. Recording Personal Message (for paging).
11-c. Press SPK to hang up (Finish).
OR
Dial 3 (erase: go to 5-a).
OR
Dial 5 (listen: go to 5-b).

Memo Dial

Description

While on an outside call, Memo Dial lets an extension user store an important number for easy redialing later on. The telephone can be like a notepad. For example, a user could dial Directory Assistance and ask for a client's telephone number. When Directory Assistance plays back the requested number, the caller can use Memo Dial to jot the number down in the telephone's memory. They can quickly call the Memo Dial number after hanging up.

When a user enters a Memo Dial number, the dialed digits do not output over the Trunk Line. Dialing Memo Dial digits does not interfere with a call in progress.

Conditions

This feature available for key telephone.

When Memo Dial calls out, it outside the entire stored number. Memo Dial does not automatically strip out Trunk Line or PBX access codes if entered as part of the stored number.

Default Setting

- Memo Dial enabled.

Options

None

Programming

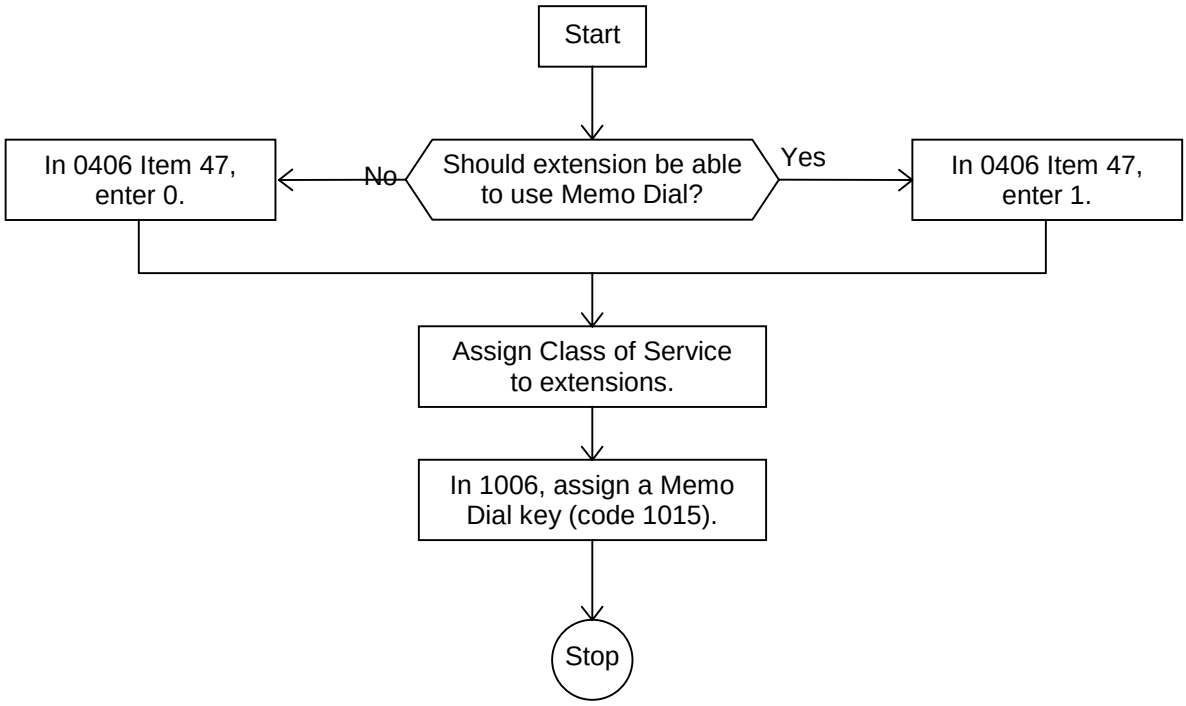
> 0406 – COS Options, Item 47: Memo Dial
  In an extension's Class of Service, enable (1) or disable (0) an extension's ability to use Memo Dial.

> 1005 – Class of Service for Extension
  Assign a Class of Service (1-10) to an extension.

> 1006 – Programming Function Keys
  Assign a function key for Memo Dialing (code 1015).

Memo Dial (Cont'd)

Programming (Cont'd)


Start
Should extension be able to use Memo Dial?
No
Yes
In 0406 Item 47, enter 0.
In 0406 Item 47, enter 1.
Assign Class of Service to extensions.
In 1006, assign a Memo Dial key (code 1015).
Stop

Memo Dial (Cont'd)

Related Features

Last Number Dialing

Quickly redial the last number dialed.

Saved Last Number Dialing

Save the last outside number dialed.

Operation

To store a number while you are on a call:

1. While on a call, press Memo Dial key (PGM 1006 or SC 851: 1015).
2. Dial number you want to store.
3. Press Memo Dial key again and continue with conversation.

To call a stored Memo Dial number:

1. Press Memo Dial key (PGM 1006 or SC 851: 1015).
2. Press idle CL key.

   The stored number dials out only if you store a Trunk Line access code before the number.

   OR

   Press line key.

   The stored number dials out.

To check to see the stored Memo Dial number:

1. Do not lift handset.
2. Press Memo Dial key (PGM 1006 or SC 851: 1015).

   The stored number displays.

To cancel (erase) a stored Memo Dial number:

1. Press idle CL key.
2. Press Memo Dial key (PGM 1006 or SC 851: 1015).

Message Waiting

Description

An extension user can leave a Message Waiting indication at a busy or unanswered extension requesting a return call. The indication is a flashing MW lamp at the called extension and a steadily lit MW lamp on the calling extension. Answering the Message Waiting automatically calls the extension which left the indication. Message Waiting ensures that a user will not miss calls when their extension is busy or unattended.

Additionally, Message Waiting lets extension users:

- View and selectively answer messages left at their extension (display key telephone only)
- Cancel all message left at their extension (key telephone only)
- Cancel messages they left at other extensions (key telephone only)

An extension user can leave Messages Waiting at any number of extensions.

Also, any number of extensions can leave a Message Waiting at the same extension.

Conditions

This feature available for key telephone and single line telephone.

A key telephone can be received Message Waiting. A single line telephone cannot be received Message Waiting.

Default Setting

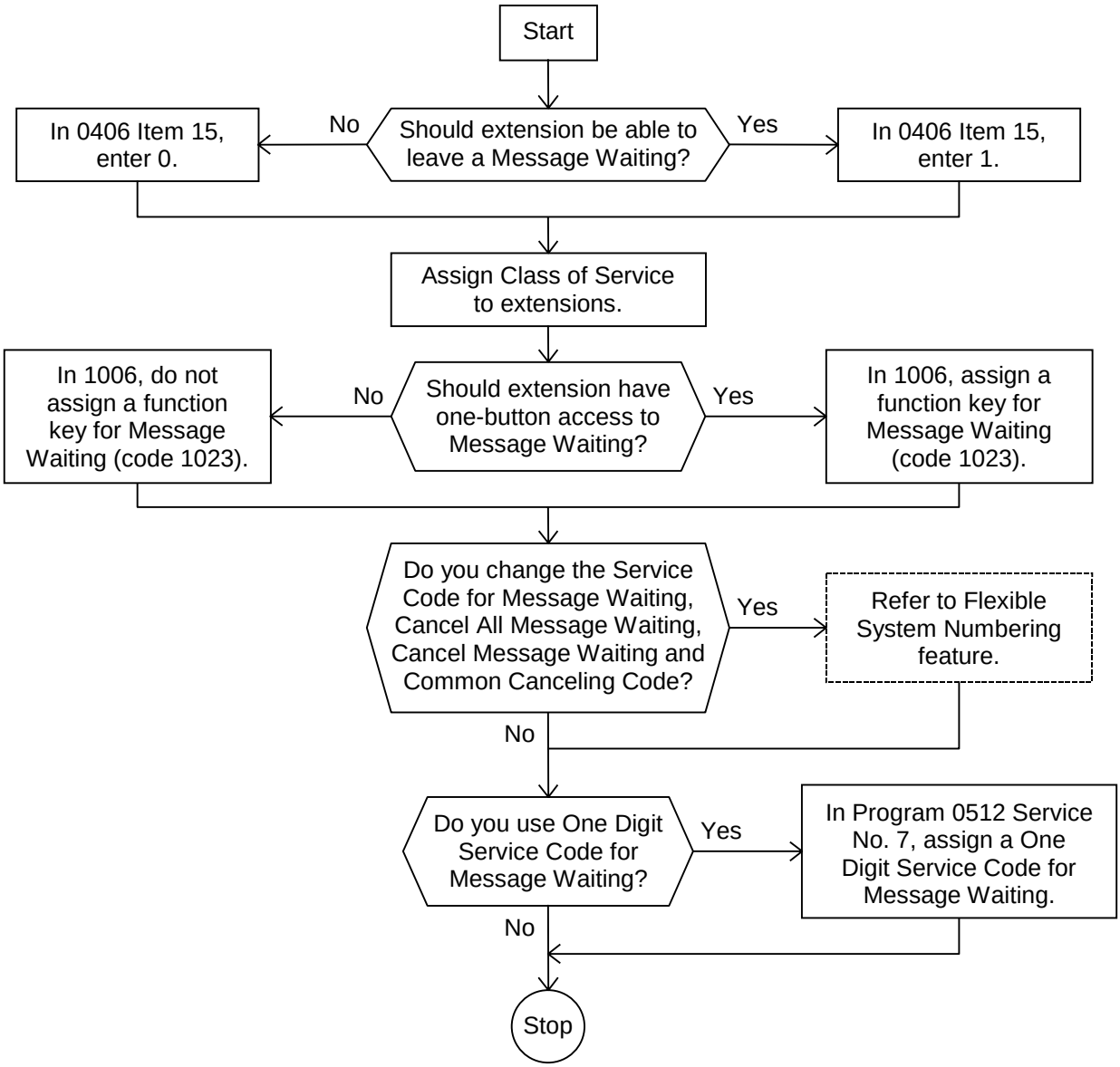
- An extension's Class of Service permits leaving Message Waiting.
- Service Code of Message Waiting is dial 841.
- Service Code of Cancel All Message Waiting is dial 873.
- Service Code of Cancel Message Waiting is dial 871.
- Service Code of Common Canceling Service Code is dial 720.
- Not setting a One Digit Service Code of Message Waiting.

Options

None

Message Waiting (Cont'd)

Programming


Start
Should extension be able to leave a Message Waiting?
No
In 0406 Item 15, enter 0.
Yes
In 0406 Item 15, enter 1.
Assign Class of Service to extensions.
Should extension have one-button access to Message Waiting?
No
In 1006, do not assign a function key for Message Waiting (code 1023).
Yes
In 1006, assign a function key for Message Waiting (code 1023).
Do you change the Service Code for Message Waiting, Cancel All Message Waiting, Cancel Message Waiting and Common Canceling Code?
Yes
Refer to Flexible System Numbering feature.
No
Do you use One Digit Service Code for Message Waiting?
Yes
In Program 0512 Service No. 7, assign a One Digit Service Code for Message Waiting.
No
Stop

Message Waiting (Cont'd)

Programming (Cont'd)

> 0406 – COS Options, Item 15: Message Waiting
In an extension's Class of Service, enable (1) or disable (0) an extension's ability to leave Massage Waiting.

> 0511 – Service Code Setup, Part A Item 10: Message Waiting
Assign a service code of message waiting.

> 0511 – Service Code Setup, Part A Item 11: Cancel All Message Waiting
Assign a service code of all message waiting.

> 0511 – Service Code Setup, Part A Item 12: Cancel Message Waiting
Assign a service code of cancel the message waiting you left at a specific extension.

> 0512 – One Digit Service Code Setup, Service No.7: Message Waiting
Assign a one digit service code for message waiting.

> 0514 – Service code Setup, Part B
Item 10: Common Canceling service code
Assign a service code of common Canceling service code.

> 1005 – Class of Service for Extension
Assign a Class of Service (1-10) to an extension.

> 1006 – Programming Function Keys
Assign function keys for Message Waiting (code 1023).

Related Features

Handsfree Answerback/Forced Intercom Ringing

When a user responds to a Message Waiting, the system does not cancel the Message Waiting indication if the called party uses Handsfree Answerback. The system cancels the indication only if the called party lifts the handset or presses SPK.

Programmable Function Key

A Message Waiting key simplifies this feature's operation.

Message Waiting (Cont'd)

Operation

<Key Telephone>

To leave a Message Waiting:

This feature only available for key telephone.

1. Call busy or unanswered extension.
2. Dial 841( )

   OR

   Press Message Waiting key (PGM 1006 or SC 851: 1023)

   OR

   Dial One Digit Service Code for Message Waiting.
   (Confirmation tone is heard.)
3. Press SPK to hang up.

   Your MW LED lights.

To answer a Message Waiting:

1. Press idle CL key and dial 841( ).

   OR

   Press Message Waiting key (PGM 1006 or SC 851: 1023).

To display your Message Waiting list:

There are the messages left by other users at your extension.

1. Press CHECK.
2. Dial 841( ).
3. Press VOL ▲ or VOL ▼ to scroll through your messages.

   Press your Messages Waiting key or and idle CL key to call the displayed extension.
4. Press CLEAR to return to the time and date display.

To cancel the Messages Waiting you have left at a specific extension:

1. Press idle CL key.
2. Dial 871( ).
3. Dial number of extension you don't want to have your messages.
   (Confirmation tone is heard.)
4. Press SPK to hang up.

Message Waiting (Cont'd)

Operation (Cont'd)

<Key Telephone> (Cont'd)

To cancel all your Message Waiting:

This includes message you have left for other extensions and messages other extension have left for you.

1. Press idle CL key.
2. Dial 873( ).
   (Confirmation tone is heard.)
3. Press SPK to hang up.

OR

1. Press idle CL key.
2. Dial 720( ). (Common Canceling Service Code)
3. Press SPK to hang up.

When you cancel of Message Waiting by dial 720, these features are cancelled at same time for DND, Call Forward, Repeat Dial, alarm clock, Headset Mode and Text Message.

<Single Line Telephone>

To leave a Message Waiting:

1. Call busy or unanswered extension (for key telephone).
2. Dial 841( ) or One digit service code for Message Waiting.
   (Confirmation tone is heard.)
3. On hook.

To cancel the Messages Waiting you have left at a specific extension:

1. Off hook.
2. Dial 871( ).
3. Dial number of extension you don't want to have your messages.
   (Confirmation tone is heard.)
4. On hook.

Message Waiting (Cont'd)

Operation (Cont'd)

<Single Line Telephone> (Cont'd)

To cancel all your Message Waiting:

1. Off hook.
2. Dial 873( ).
   (Confirmation tone is heard.)
3. On hook.

OR

1. Off hook.
2. Dial 720 ( ). (Common Canceling Service Code)
3. On hook.

When you cancel of Message Waiting by dial 720, these features are cancelled at same time for DND, Call Forward, Repeat Dial, alarm clock, Headset Mode and Text Message.

To answer a Message Waiting:

To display your Message Waiting list:

These features only available for key telephone with display.

Music on Hold

Description

Music on Hold (MOH) sends music to calls on Hold and parked calls. The music lets the caller know that his call is waiting, not forgotten.

Without Music on Hold, the system provides silence to these types of calls. Music on Hold is generated from the internal music source.

Optionally, customer’s music device such as CD player or Radio can be used as the source. For the details, refer to “External Music on Hold”.

Conditions

This feature available for key telephone and single line telephone.

Default Setting

- Default password for changing MOH is 0000.
- The Music on Hold selection is Minuet.
- An extension's Class of Service permits changing the Music on Hold tone.
- All Trunk Line use the internal Music on Hold source.

Options

None.

Programming

> 0202 – Setting the User Password, Item 1: Setting of Data and Time, and Changing the Music on Hold Tone

Set the password for a user must dial before changing the Music on Hold tone (four digits).

> 0302 – Music on Hold and Conference Setup. Item 1: Music on Hold tone

Set the Music on Hold selection. The options are 0 (no tone or external), 1 (synthesized Minuet in G), 2 (synthesized Nocturne).

> 0406 – COS Options, Item 45: Changing the Music on Hold Tone

In an extension's Class of Service, enable (1) or disable (0) an extension's ability to change the Music on Hold tone (Service Code 881).

> 0511 – Service Code Setup, Part A Item 1: Change of music on hold tone

Assign a Service Code for change of music on hold tone.

> 0914 – Setting the Music on Hold Source

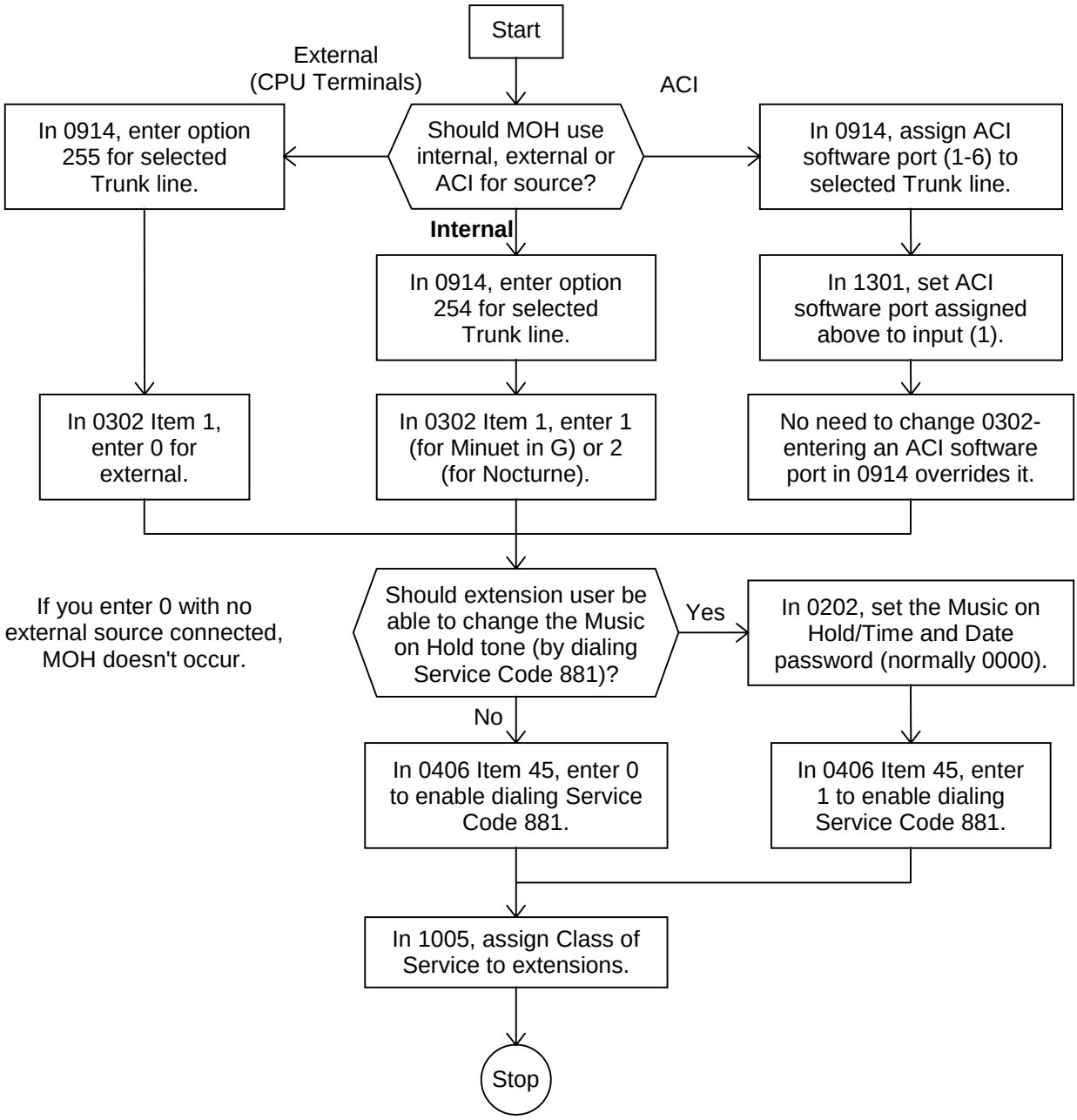
Set the Music on Hold source.

> 1005 – Class of Service

Assign a Class of Service (1-10) to an extension.

Music on Hold (Cont’d)

Programming (Cont'd)


Start
External
(CPU Terminals)
ACI
In 0914, enter option 255 for selected Trunk line.
Should MOH use internal, external or ACI for source?
In 0914, assign ACI software port (1-6) to selected Trunk line.
Internal
In 0914, enter option 254 for selected Trunk line.
In 1301, set ACI software port assigned above to input (1).
In 0302 Item 1, enter 0 for external.
In 0302 Item 1, enter 1 (for Minuet in G) or 2 (for Nocturne).
No need to change 0302- entering an ACI software port in 0914 overrides it.
If you enter 0 with no external source connected, MOH doesn't occur.
Should extension user be able to change the Music on Hold tone (by dialing Service Code 881)?
Yes
In 0202, set the Music on Hold/Time and Date password (normally 0000).
No
In 0406 Item 45, enter 0 to enable dialing Service Code 881.
In 0406 Item 45, enter 1 to enable dialing Service Code 881.
In 1005, assign Class of Service to extensions.
Stop

Music on Hold (Cont'd)

Related Features

None

Operation

To change the Music on Hold tone:

1. Press idle CL key.
2. Dial 881 ( ).
3. Dial the password (normally 0000).
4. Dial Music on Hold tone code:
   0: No tone
   1: Minuet
   2: Nocturne
5. Press SPK to hang up.

Name Storing (Trunk & Station)

Description

Extensions and Trunk Line can have names instead of physical circuit port numbers. These names show on an extension's display when the user places or answers calls. Extension and Trunk Line names make it easier to identify callers. The user does not have to refer to a directory when processing calls. A name can be up to 10 digits long, consisting of alphanumeric characters, punctuation marks and spaces.

Conditions

This feature available for key telephone with display.

Default Setting

- Set by an extension's Class of Service:
  Trunk Line names display when the Trunk Line starts ringing or when the user seizes the Trunk Line. Extension names display when intercom call rings in, is voice announced or is answered by the user.
  Extensions may program their names.
- “EXT xxx” for extensions. (xxx: 200-271)
- “LINE yyy” for trunk lines. (yyy: 01-52)

Options

None

Programming

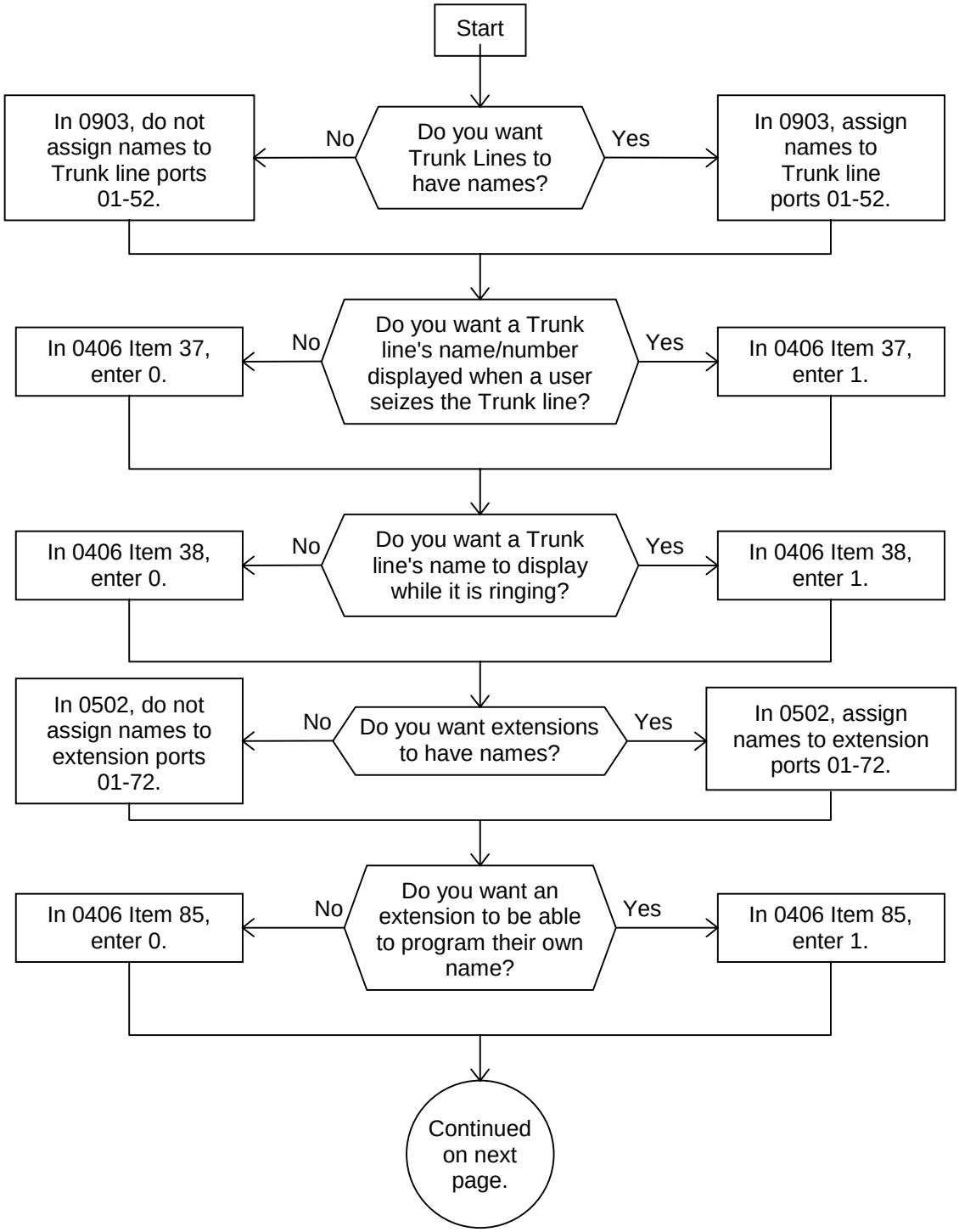
> 0406 – COS Options, Item 37: Trunk Line No. and Name Display (seizing)
  In an extension's Class of Service, enable (1) or disable (0) the displaying of a Trunk Line's name/number when the user seizes the Trunk line (incoming or outgoing).

> 0406 – COS Options, Item 38: Trunk Line No. and Name Display (incoming)
  In an extension's Class of Service, enable (1) or disable (0) the displaying of a Trunk Line's name/number when the Trunk line is ringing.

> 0406 – COS Options, Item 39: Extension No. and Name Display (conversation)
  In an extension's Class of Service, enable (1) or disable (0) the displaying of the incoming Intercom callers name/number after the extension user answers the call. (The user answers by pressing SPK or lifting the handset.)

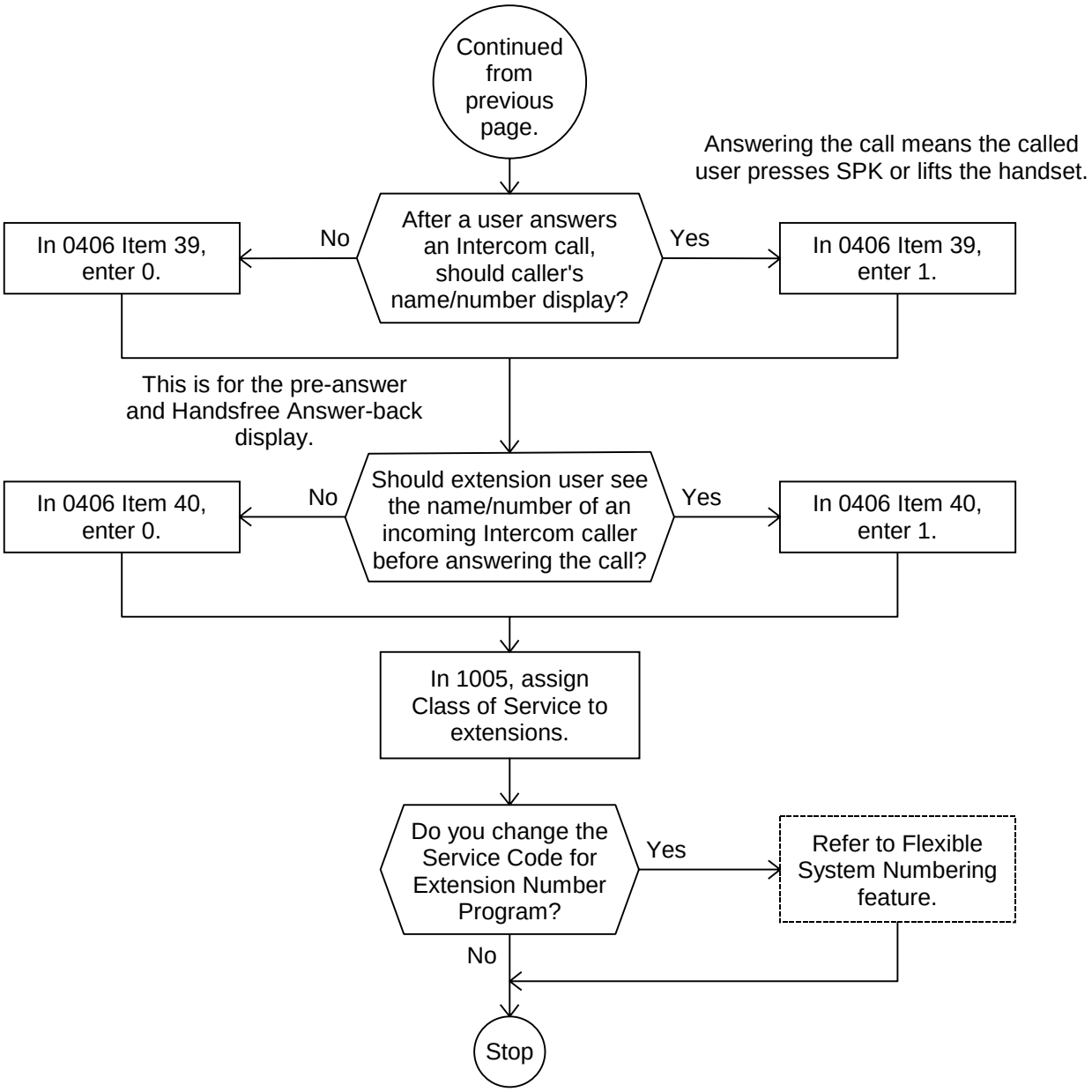
Name Storing (Trunk & Station) (Cont'd)

Programming (Cont'd)


Start
Do you want Trunk Lines to have names?
No
Yes
In 0903, do not assign names to Trunk line ports 01-52.
In 0903, assign names to Trunk line ports 01-52.
Do you want a Trunk line's name/number displayed when a user seizes the Trunk line?
No
Yes
In 0406 Item 37, enter 0.
In 0406 Item 37, enter 1.
Do you want a Trunk line's name to display while it is ringing?
No
Yes
In 0406 Item 38, enter 0.
In 0406 Item 38, enter 1.
Do you want extensions to have names?
No
Yes
In 0502, do not assign names to extension ports 01-72.
In 0502, assign names to extension ports 01-72.
Do you want an extension to be able to program their own name?
No
Yes
In 0406 Item 85, enter 0.
In 0406 Item 85, enter 1.
Continued on next page.

Name Storing (Trunk & Station) (Cont'd)

Programming (Cont'd)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Answering the call means the called user presses SPK or lifts the handset.
After a user answers an Intercom call, should caller's name/number display?
No
Yes
In 0406 Item 39, enter 0.
In 0406 Item 39, enter 1.
This is for the pre-answer and Handsfree Answer-back display.
Should extension user see the name/number of an incoming Intercom caller before answering the call?
No
Yes
In 0406 Item 40, enter 0.
In 0406 Item 40, enter 1.
In 1005, assign Class of Service to extensions.
Do you change the Service Code for Extension Number Program?
Yes
Refer to Flexible System Numbering feature.
No
Stop

Name Storing (Trunk & Station) (Cont'd)

Programming (Cont'd)

> 0406 – COS Options, Item 40: Extension No. and Name Display (incoming)
  In an extension's Class of Service, enable (1) or disable (0) the displaying of the incoming Intercom callers name/number. This is for the pre-answer and Handsfree Answer-back display.

> 0406 – COS Options, Item 85: Extension name input
  In an extension's Class of Service, enable (1) or disable (0) an extension's ability to program their name.

> 0502 – Extension Numbers and Names
  Program names for system extensions (port 01-72).

> 0511 – Service Code Setup, Part A Item 79: Extension name program
  Assign a service code for extension name program.

> 0903 – Trunk Line Names
  Program names for system Trunk Lines (01-52).

> 1005 – Class of Service for Extension
  Assign a Class of Service (1-10) to an extension.

Related Features

Directory Dialing

Digital Key Telephones with Larger Display use extension names for Directory Dialing.

Operation

To program your extension's name:

1. Press idle CL key.
2. Dial 800( ).
3. Enter name (see below).
   Your name can be up to 10 digits max.
4. Press HOLD.
5. Press SPK to hang up.

Night Service (Manual / Auto)

Description

Night Service lets system users activate one of the Night Service modes.

Night Service redirects calls to their night mode destination, as determined by Assigned and Universal Night Answer programming. A user typically activates Night Service after normal working hours, when most employees are unavailable to answer calls. The system also provides external contacts to enable Night Service.

There are four Night Service modes:

- Day Mode – for normal working hours
- Night Mode – after hours (evening)
- Midnight Mode – after hours (late evening to midnight)
- Rest Mode – interval usually used for lunch

Assigned Night Answer (ANA)

With Assigned Night Answer, Night Service has calls ring extensions directly. Assigned Night Answer provides an answering point for Night Service calls. For certain applications, this may be more appropriate than Universal Night Answer. For example, you could program Trunk Line to ring the security station telephone during off hours.

Universal Night Answer (UNA)

Universal Night Answer makes incoming calls ring over the External Paging speakers. With UNA, an employee can go to a telephone and press the flashing line key.

Conditions

Night service feature is system wide.

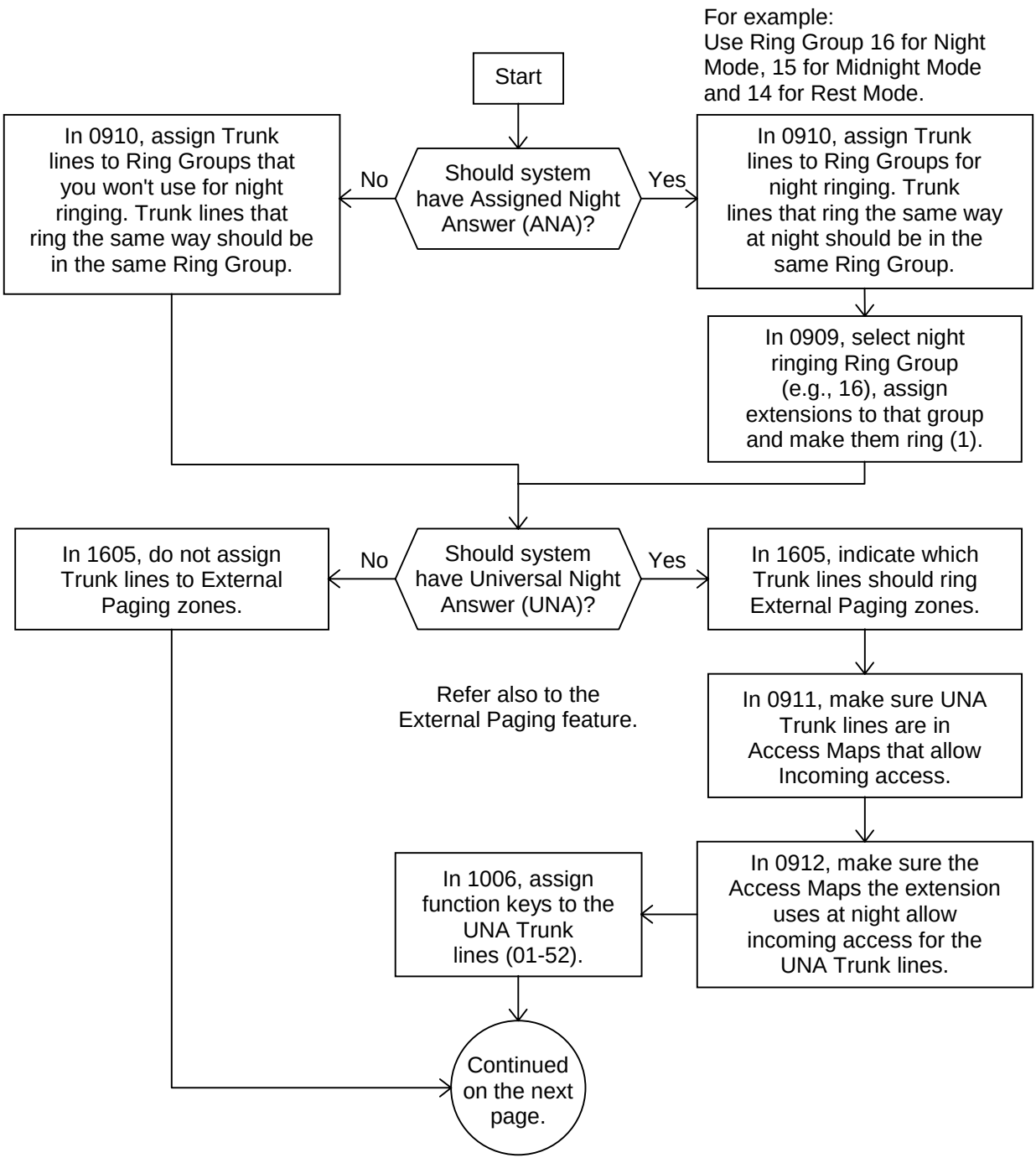
Manual day/night mode change is available for key telephone

Default Setting

- Night Service user password is 0000.
- Manual Night Mode Switch allowed.
- Automatic Night Mode Switch allowed.
- An extension's Class of Service not allowed Manual Night Mode Switch.

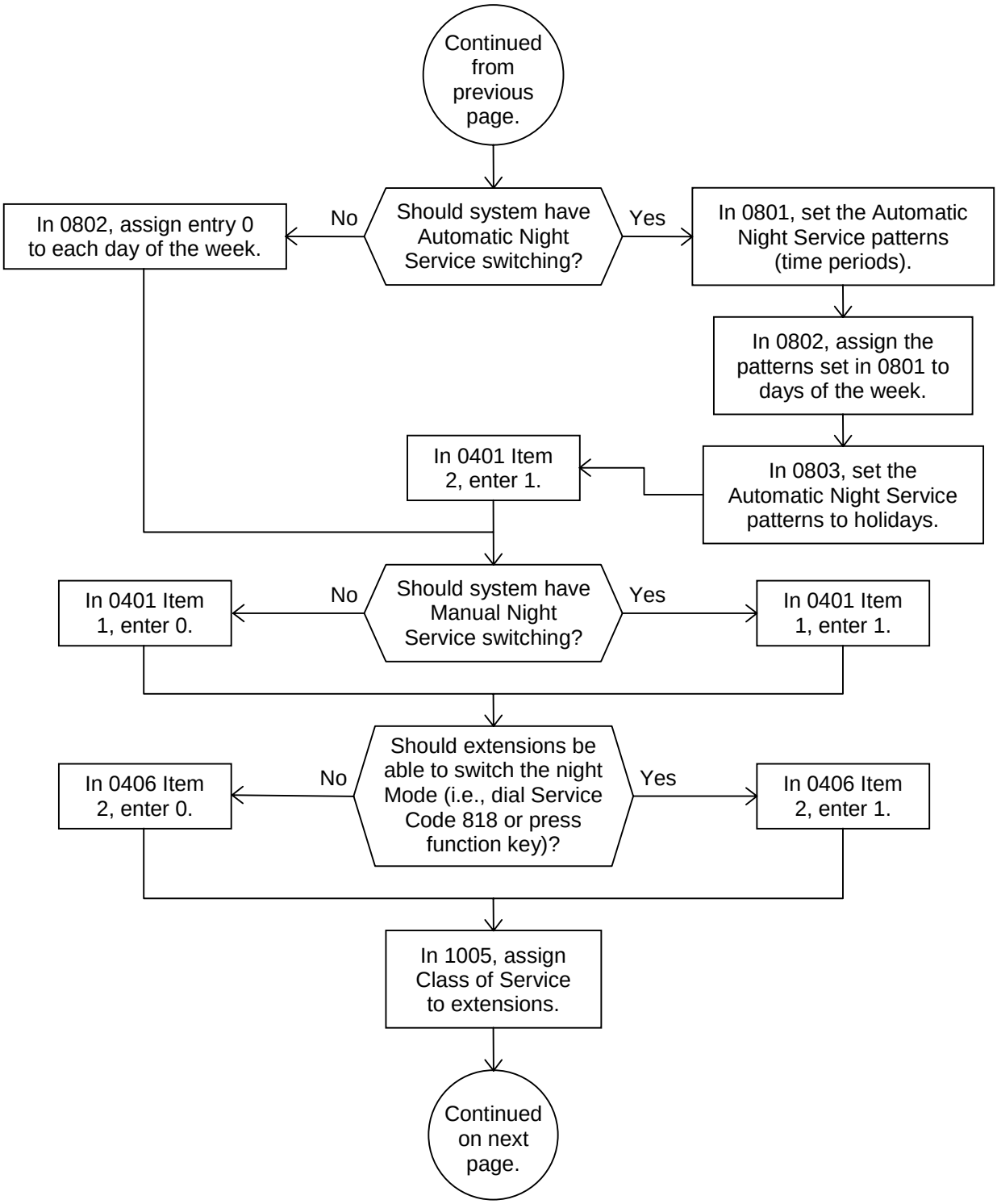
Night Service (Manual / Auto) (Cont'd)

Programming


For example:
Use Ring Group 16 for Night Mode, 15 for Midnight Mode and 14 for Rest Mode.
Start
Should system have Assigned Night Answer (ANA)?
No
Yes
In 0910, assign Trunk lines to Ring Groups that you won't use for night ringing. Trunk lines that ring the same way should be in the same Ring Group.
In 0910, assign Trunk lines to Ring Groups for night ringing. Trunk lines that ring the same way at night should be in the same Ring Group.
In 0909, select night ringing Ring Group (e.g., 16), assign extensions to that group and make them ring (1).
Should system have Universal Night Answer (UNA)?
No
Yes
In 1605, do not assign Trunk lines to External Paging zones.
In 1605, indicate which Trunk lines should ring External Paging zones.
Refer also to the External Paging feature.
In 0911, make sure UNA Trunk lines are in Access Maps that allow Incoming access.
In 0912, make sure the Access Maps the extension uses at night allow incoming access for the UNA Trunk lines.
In 1006, assign function keys to the UNA Trunk lines (01-52).
Continued on the next page.

Night Service (Manual / Auto) (Cont'd)

Programming (Cont'd)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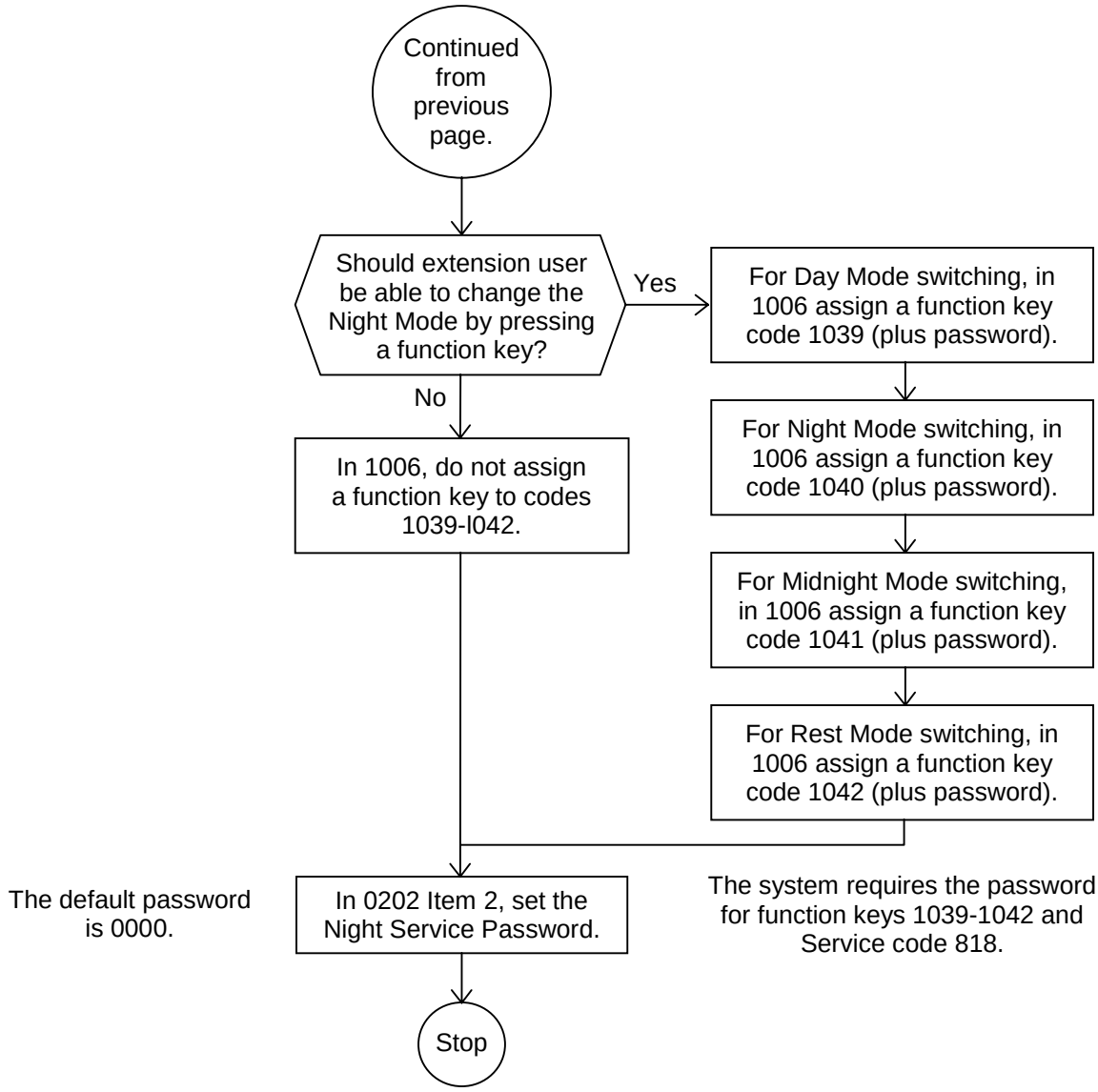
Should system have Automatic Night Service switching?
No
Yes
In 0802, assign entry 0 to each day of the week.
In 0801, set the Automatic Night Service patterns (time periods).
In 0802, assign the patterns set in 0801 to days of the week.
In 0803, set the Automatic Night Service patterns to holidays.
In 0401 Item 2, enter 1.
Should system have Manual Night Service switching?
No
Yes
In 0401 Item 1, enter 0.
In 0401 Item 1, enter 1.
Should extensions be able to switch the night Mode (i.e., dial Service Code 818 or press function key)?
No
Yes
In 0406 Item 2, enter 0.
In 0406 Item 2, enter 1.
In 1005, assign Class of Service to extensions.
Continued on next page.

Night Service (Manual / Auto) (Cont'd)

Programming (Cont'd)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Should extension user be able to change the Night Mode by pressing a function key?
Yes
No
For Day Mode switching, in 1006 assign a function key code 1039 (plus password).
For Night Mode switching, in 1006 assign a function key code 1040 (plus password).
For Midnight Mode switching, in 1006 assign a function key code 1041 (plus password).
For Rest Mode switching, in 1006 assign a function key code 1042 (plus password).
In 1006, do not assign a function key to codes 1039-l042.
The default password is 0000.
In 0202 Item 2, set the Night Service Password.
The system requires the password for function keys 1039-1042 and Service code 818.
Stop

Night Service (Manual / Auto) (Cont'd)

Options

None

Programming (Cont'd)

> 0202 – Setting the User Password, Item 2: Switching of Night Mode
Set the password an extension user must dial before activating Night Service (four digits).

> 0401 – System Options, Part A, Item 1: Manual Night Service Enable
Allow (1) or prevent (0) from activating Night Service.

> 0401 – System Options, Part A, Item 2: Automatic Night service Enable
Enable (1) or disable (0) Automatic Night Mode switching.

> 0406 – COS Options, Item 2: Manual Night Service Switching
In an extension's Class of Service, enable (1) or disable (0) an ability to manually switch the Night Mode (Service Code 818).

> 0511 – Service Code Setup, Part A Item 5: Night-mode switching
Assign a service code for night-mode switching

> 0801 – Automatic Night Service Patterns
Configure the Automatic Night Service patterns.

> 0802 – Weekly Night Service Switching
Assign one of the five Automatic Night Service patterns programmed in 0801 to each day of the week.

> 0803 – Holding Night Service Switching
Assign one of the five Automatic Night Service patterns to holidays.

> 0909 – Extension Ring Group Assignment,
To have Trunk lines ring extension during the different Night Service modes (for ANA), assign extension to Ring Groups (1-16). For each extension in the Ring Group, indicate if Trunk line should ring (1) or not ring(0).

> 0910 – Trunk Line Ring Group Assignment
To have Trunk lines ring extensions for ANA, assign Trunk lines to Ring Groups.
You make a different entry for each Night Service mode.

Night Service (Manual / Auto) (Cont'd)

Programming (Cont'd)

> 0911 – Trunk Line Access Map Setup
  To allow for UNA answering, set up the Trunk line Access Maps (1-16). For UNA, extension must have incoming access to Trunk line ringing the External Paging speakers.

> 0912 – Extension Access Map Assignment
  For UNA answering, assign Trunk line Access Maps (1-16) to extensions. Make one entry for each Night Service mode.

> 1005 – Class of Service for Extension
  Assign a Class of Service (1-10) to an extension.

> 1006 – Programming Function Keys
  Assign Night Service function keys to extensions:
    Day Mode = 1039 + password
    Night Mode = 1040 + password
    Mid Night Mode = 1041 + password
    Rest Mode = 1042 + password

> 1605 – Universal Night Answer
  For each Night Service Mode, assign which Trunk Lines should ring which External Paging Zones.

Related Features

Central Office Calls, Answering and Placing/Ring Groups

There are separate Access Map and Ring Group programming entries for each Night Service mode (Day, Night, Midnight, and Rest).

Paging, External

When Universal Night Answer, outside calls can ring External Paging Zones.

Programmable Function Key

For each Night Service Mode, assign which Trunk lines should ring which External Paging Zones.

Night Service (Manual / Auto) (Cont'd)

Operation

<Key Telephone>

To activate Night Service by dialing codes:

1. Press idle CL key.
2. Dial 818( ).
3. Dial Night Service Password (default 0000).
4. Dial Night Service code:
   0: Day mode
   1: Night mode
   2: Midnight mode
   3: Rest mode

   (Confirmation tone is heard.)
5. Press SPK to hang up.

To activate Night Service by using programmable keys:

1. Press Night Service key (see below).
   Day mode key (PGM 1006 or SC 851: 1039 + password)
   Night mode key (PGM 1006 or SC 851: 1040 + password)
   Midnight mode key (PGM 1006 or SC 851: 1041 + password)
   Rest mode key (PGM 1006 or SC 851: 1042 + password)

   (Confirmation tone is heard.)

<Single Line Telephone>

To activate Night Service by dialing codes:

1. Off hook.
2. Dial 818( ).
3. Dial Night Service Password (default 0000).
4. Dial Night Service code:
   0: Day mode
   1: Night mode
   2: Midnight mode
   3: Rest mode

   (Confirmation tone is heard.)
5. On hook.

To activate Night Service by using programmable keys:

This feature only available for key telephone.

One-Touch Dialing

Description

One-Touch Dialing gives an extension user one button access to extensions, Trunk Lines and selected system features. This saves users time when accessing co-workers, clients and features they use most often.

Instead of dialing a series of codes, the user needs only press the One-Touch Key.

An extension user can have One-Touch Keys programmed for:

- Direct Station Selection – one button access to extensions
- Trunk Line Calling – one button access to Trunk Lines or Trunk Line groups
- Abbreviated Dialing – one button access to stored Abbreviated Dialing numbers
- Service Code – one button access to specific Service Code

An extension user can chain dial with One-Touch Keys. For example, a user can store their bank's automated number in one key and their security code in another. After the bank answers, the user just presses the second key to enter their security code. The digits output exactly as entered (i.e., Service Code 818 outputs as digits 818).

One-Touch Dialing is the first level of operation of One-Touch Keys. In other words, One-Touch Dialing occurs when the user just presses the key.

There is a second level of One-Touch Key operation called One-Touch Serial Calling. The user access these functions by first pressing the Serial Operation key. Refer to the One-Touch Serial Operation feature.

Conditions

This feature available for key telephone. (except DSLT)

One-Touch Keys do not provide a Busy Lamp Field (BLF).

Default Setting

- One-Touch Keys have no assigned functions.
- Service Code of one touch dial number saving is dial 855.

One-Touch Dialing (Cont'd)

Options

None

Programming

> 0511 – Service Code Setup, Part A
>
> Item 27: One touch dial number saving
>
> Assign a service code for one touch dial number saving.

> 1007 – Programming One-Touch Keys
>
> Set the functions of an extension's One-Touch Keys. An extension user can also program their One-Touch Keys.

Related Features

One-Touch Serial Operation

An extension user can use One-Touch Keys to store a series of operations.

Programmable Function Key

Function keys can also give an extension user one-touch access to selected system features.

Transfer

When transferring a call, an extension user can press a One-Touch Key instead of dialing the extension number.

Operation

To program a One-Touch Key for Direct Station Selection (extension) calling:

1. Press idle CL key and dial 855( ).
2. Press One-Touch Key you want to program.
3. Dial extension number you want assign to that key.
4. Press SPK to hang up.

One-Touch Dialing (Cont'd)

Operation (Cont'd)

To program a One-Touch Key for Trunk Line calling:

1. Press idle CL key and dial 855( ).
2. Press One-Touch Key you want to program.
3. Dial general Trunk Line access code (9).

   OR

   Dial Specific Trunk Line Service Code (805) plus the Trunk Line number. (e.g., 05)

   OR

   Dial Trunk Line Group Service Code (804) plus the Trunk Line group number (e.g., 1).
4. Dial number you want to call.

   To enter a pause, press MIC.
5. Press SPK to hang up.

To program a One-Touch Key for Abbreviated Dialing:

1. Press idle CL key and dial 855( ).
2. Press One-Touch Key you want to program.
3. Dial 813( ) to store a Common Abbreviated Dialing number.

   OR

   Dial 814( ) to store a group Abbreviated Dialing number.
4. Dial Abbreviated Dialing number storage code (e.g., 001).
5. Press SPK to hang up.

To assign a Service Code to a One-touch Key:

This lets you make your own set of one-touch feature keys.

1. Press idle CL key and dial 855( ).
2. Press One-Touch Key you want to program.
3. Dial Service Code you want stored.

   For example, if you want a One-Touch Key to automatically clear your Last Number Dialing, enter 876.
4. Press SPK to hang up.

To use a One-Touch Key:

1. Press One-Touch Key.

   If you press a line key before pressing a One-Touch Key for Trunk Line calling, the system automatically strips the Trunk Line code before dialing the number.

One-Touch Dialing (Cont'd)

Operation (Cont'd)

To chain One-Touch Keys:

1. Press first One-Touch Key.
   Last the stored function dial out.
2. Press another One-Touch Key.
   The stored digits dial out.

To check the function of a One-Touch Key:

1. Press CHECK.
2. Press One-Touch Key.
   The stored function displays.
   Repeat this step to check other keys. If you cannot see the entire number stored, dial *.
3. Press CLEAR.

One-Touch Serial Operation

Description

An extension user have One-Touch Serial Operation store a series of feature steps under a One-Touch Key. This simplifies extension operation by giving each user the ability to have customized feature keys. For example, an extension user could have a One-Touch Serial Operations Key automatically forward all their calls to extension 210. One-Touch Serial Operation can store up to 24 of the following operations:

Allowed Serial Operations	
Service Codes Digits 0-9, # and * One-Touch Keys Function Keys Pause (by pressing MIC)	SPK, DND, VOL ▲ and VOL ▼, CL, HOLD DC, FLSH, LND, TRFR, CHECK, and CLEAR keys

One-Touch Serial Operation is the second level of operation of One-Touch keys. The user must press the Serial Operation key before the One-Touch Key. The first level of operation is One-Touch Dialing, which occurs when the user just presses the key. Refer to the One-Touch Dialing feature.

Conditions

This feature available for key telephone. (except DSLT)

(A) One-Touch Serial Operation does not provide a Busy Lamp Field (BLF).

(B) If a user stores a One-Touch Key as part of a serial operation, the system uses the first level (One-Touch function). If there is a serial operation stored under the key selected, the system ignores it.

Default Setting

- No Serial Operation key programmed.
- Service Code for Serial operation registration to one touch key is dial 852.

Options

None

One-Touch Serial Operation (Cont'd)

Programming

> 0511 – Service Code Setup, Part A
Item 43: Serial operation registration to one touch key
Assign a service code for serial operation registration to one touch key.

> 1006 – Programming Function Keys
Assign a function keys for Serial Operation (code 1034).

Related Features

One-Touch Dialing

One-Touch Dialing gives an extension user one button access to extensions, Trunk Line and selected system features.

Programmable Function Key

One-touch Serial Operation requires a uniquely programmed function key.

Operation

To store a series of operations in a One-Touch key:

1. Press idle CL key.
2. Dial 852( ).
3. Press the One-Touch Key you want to program.
4. Enter the sequence of operations you want to store (up to 24 entries).
   You can store the following operations:
   Service Codes
   *Digits 0-9, # and **
   SPK, DND, VOL ▲ and VOL ▼, CL, HOLD
   DC, FLSH, LND, TRFR, CHECK, and CLEAR keys
   One-Touch Keys
   Function Keys
   Pause (by pressing MIC)
5. Press the Serial Operations key (PGM 1006 or SC 851: 1034)
6. Press SPK to hang up.

To dial using One-Touch Serial Operation;

1. Press Serial Operation key (PGM 1006 or SC 851: 1034).
2. Press One-Touch Key.
   The stored serial operation dials out.

One-Touch Serial Operation (Cont'd)

Operation (Cont'd)

To check the serial operation stored in a One-Touch Key:

1. Press CHECK.
2. Press One-Touch Key twice.

   The stored serial operation displays.

   To check another key, press it twice before going to step 3.

   *If the stored number does not fit in the display, dial * to see the entire number.*
3. Press CLEAR.

To clear a One-Touch Serial Operation:

1. Press idle CL key.
2. Dial 852( ).
3. Press One-Touch Key you want to delete.
4. Press the Serial Operations key (PGM 1006 or SC 851: 1034).
5. Press SPK to hang up.

   If you store a One-Touch Key as part of a serial operation, the system uses first level (One-Touch) function.

Paging

Description

The system allows the following types of paging;

- Internal Paging

Internal Paging lets extension users broadcast announcements to other keyset users. The system allows up to 8 separate Internal Paging Zones and allows one internal all call paging group which not correspond to normal internal paging groups. When a user makes a Page announcement, the announcement broadcasts to all idle extensions (key telephone) in the zone dialed. An extension can be a member of one Internal Paging Zone. Like External Paging, Internal Paging allows a user to locate another employee or make an announcement without calling each extension individually.

- External Paging

With External Paging, a user can broadcast announcements over paging equipment connected to external Paging zones. When a user pages one of these external zones, the system broadcasts the announcement over the speakers. Like Internal Paging, External Paging allows a user to locate another employee or make an announcement without calling each extension individually.

The system allows up to eight External Paging zones. Each zone requires a port on a PGDU option cards and customer-provided Paging equipment.

- Paging Combine

With Paging Combine, a user can broadcast announcements over paging equipment connected to external zones and other keyset users in an extension group at the same time.

Each external paging zone can has one internal paging group which is called Paging Combine at the same time.

Conditions

- This feature available for key telephones and single line telephones.
- Single line telephones cannot received internal paging call.
- Internal Paging does not require a PGDU card.
- External Paging requires the installation of PGDU Cards and customer-provided Paging equipment.

Options

DX2E-4PGDU-S1

Paging (Cont’d)

Related Features

Doorphone

If PGDU card has four Doorphone connected par a card, you cannot use the port for External Paging.

Night Service (Universal Night Answer)

Outside calls can ring External Paging Zones.

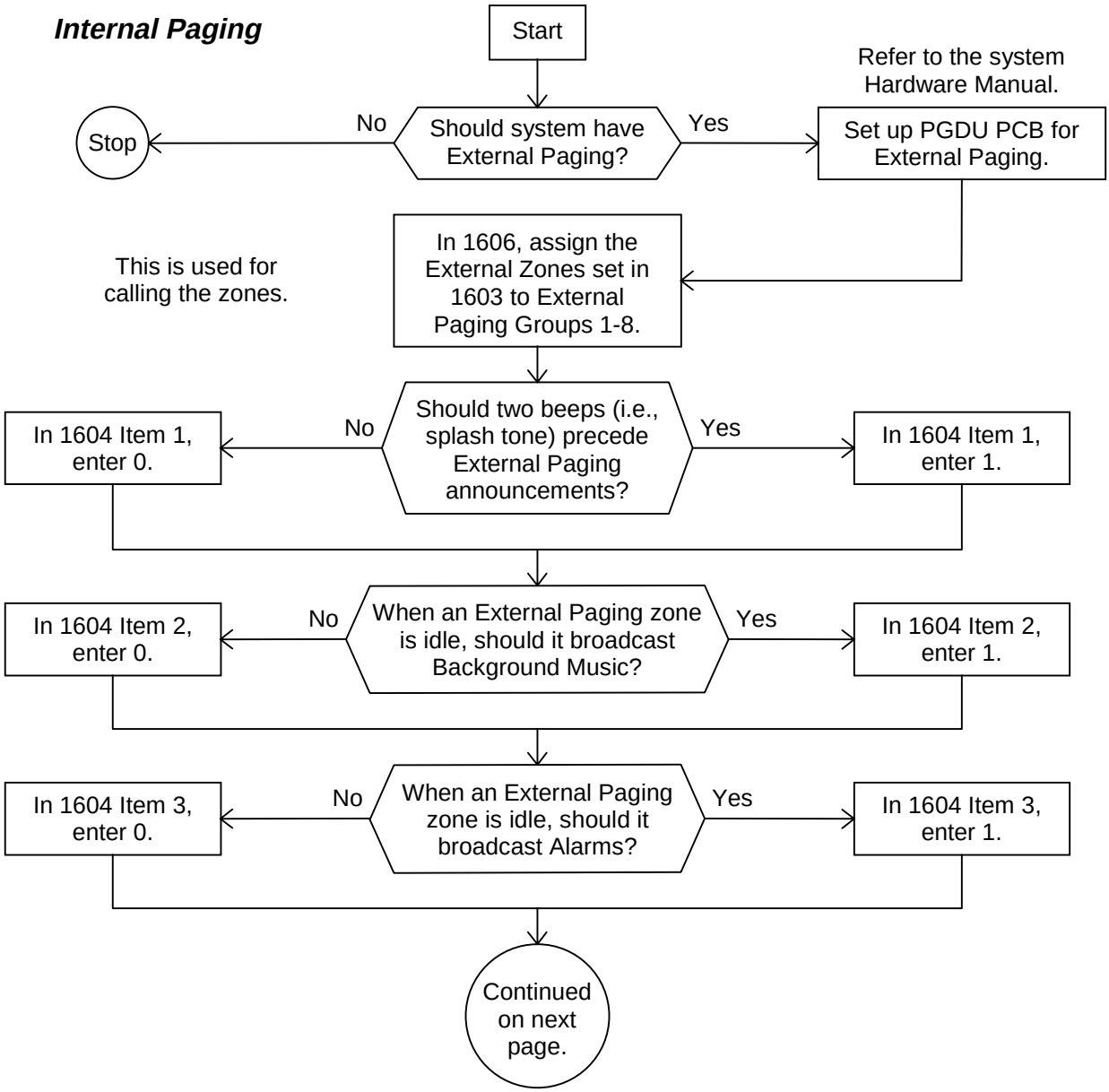
Default Setting

- No Internal Paging Groups programmed.
- An extension's Class of Service allows Internal Paging.
- No Internal Paging Zone keys assigned.
- Service code for internal group paging is dial 801.
- All External Paging ports have gain number 1 (0 dB).
- Maximum duration of Paging announcement is 120 seconds.
- An extension's Class of Service permits initiating External Paging.
- All External Paging Zones broadcast a splash tone before the page announcement.
- External Paging Zone numbers are the same as the External Paging Group numbers.
- Service Code for External paging is dial 803.

Paging (Cont'd)

Programming

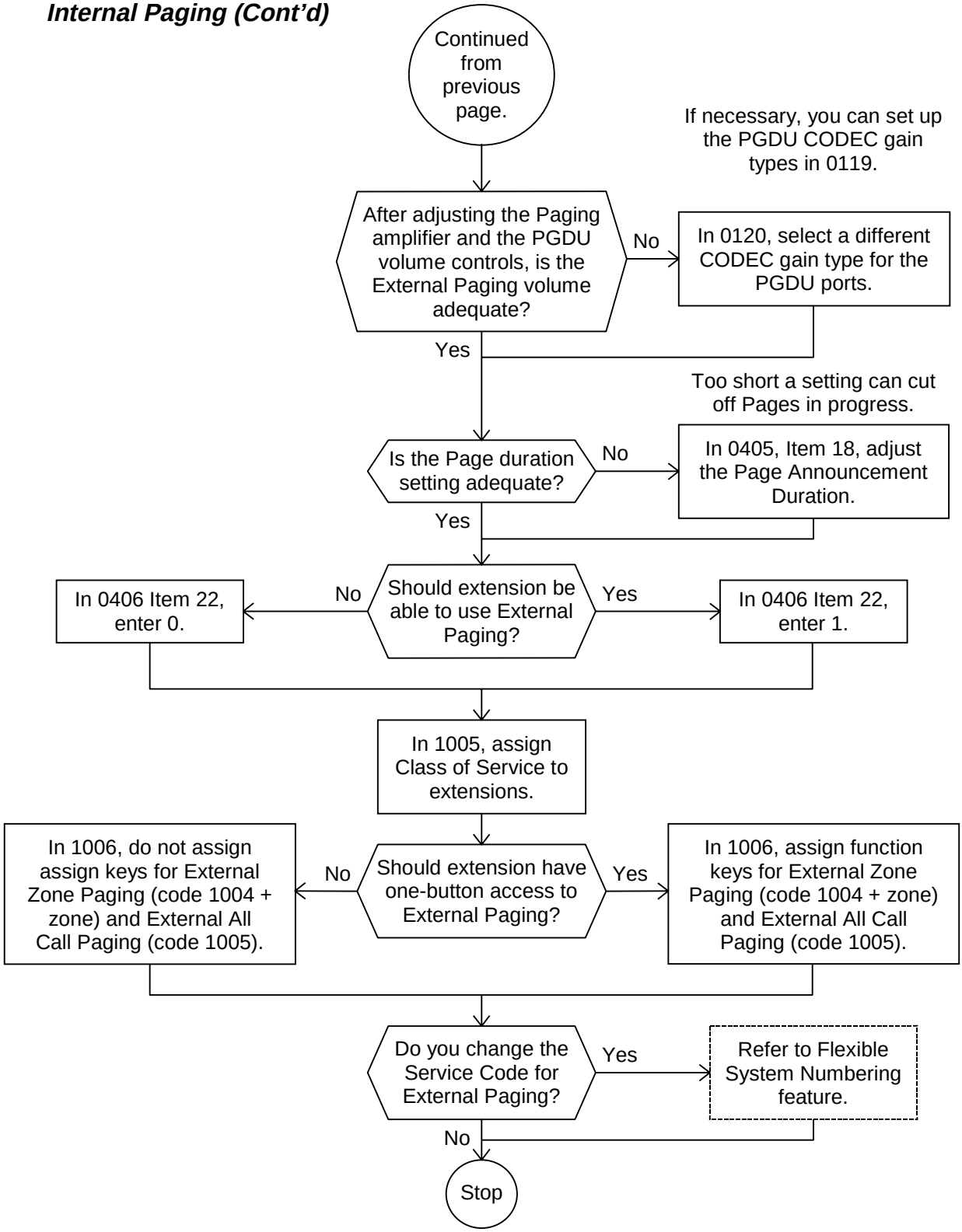
Internal Paging


Start
Refer to the system Hardware Manual.
Stop
No
Should system have External Paging?
Yes
Set up PGDU PCB for External Paging.
This is used for calling the zones.
In 1606, assign the External Zones set in 1603 to External Paging Groups 1-8.
In 1604 Item 1, enter 0.
No
Should two beeps (i.e., splash tone) precede External Paging announcements?
Yes
In 1604 Item 1, enter 1.
In 1604 Item 2, enter 0.
No
When an External Paging zone is idle, should it broadcast Background Music?
Yes
In 1604 Item 2, enter 1.
In 1604 Item 3, enter 0.
No
When an External Paging zone is idle, should it broadcast Alarms?
Yes
In 1604 Item 3, enter 1.
Continued on next page.

Paging (Cont'd)

Programming (Cont'd)

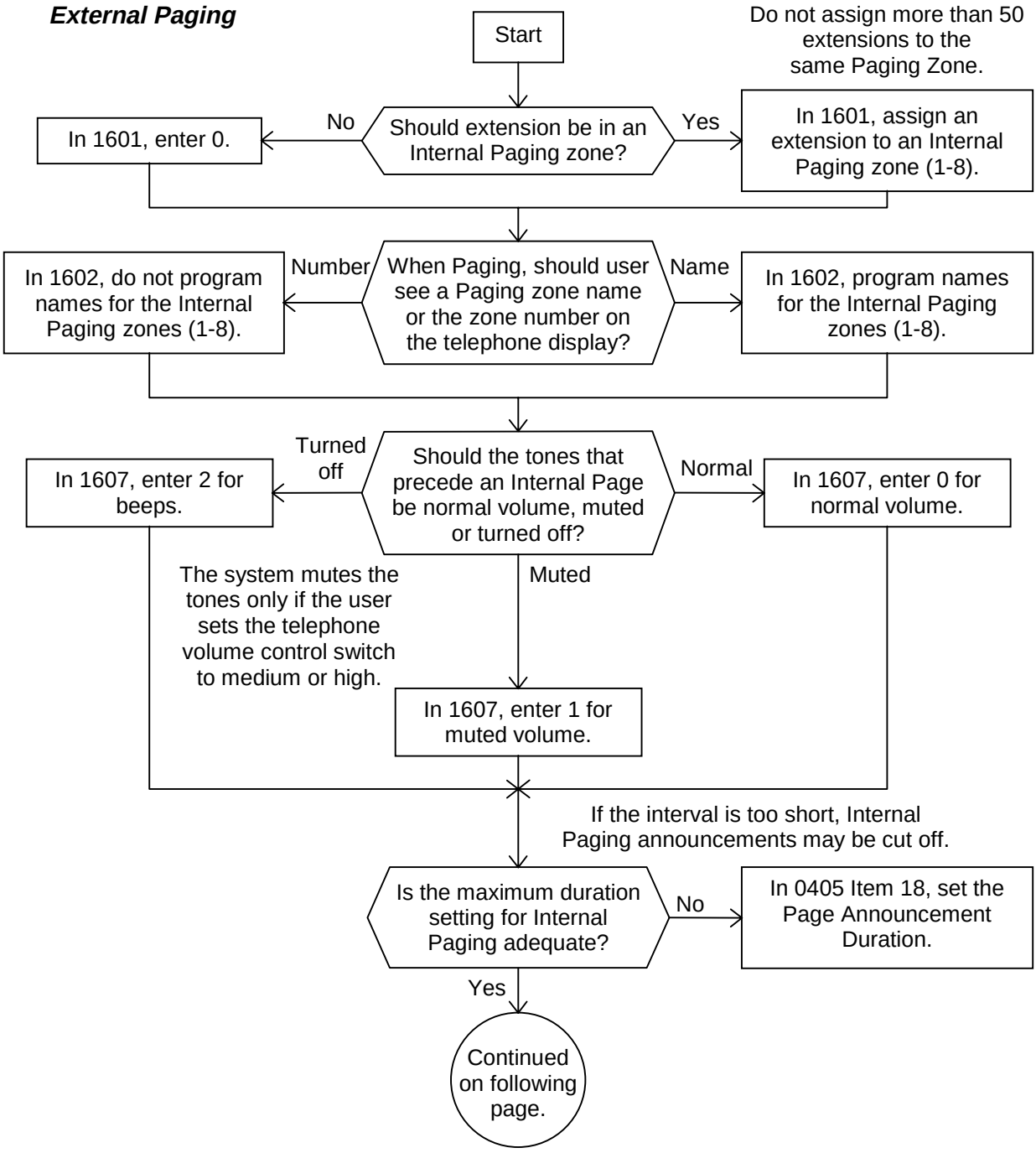
Internal Paging (Cont'd)


Continued from previous page.
If necessary, you can set up the PGDU CODEC gain types in 0119.
After adjusting the Paging amplifier and the PGDU volume controls, is the External Paging volume adequate?
No
In 0120, select a different CODEC gain type for the PGDU ports.
Yes
Too short a setting can cut off Pages in progress.
Is the Page duration setting adequate?
No
In 0405, Item 18, adjust the Page Announcement Duration.
Yes
In 0406 Item 22, enter 0.
No
Should extension be able to use External Paging?
Yes
In 0406 Item 22, enter 1.
In 1005, assign Class of Service to extensions.
In 1006, do not assign assign keys for External Zone Paging (code 1004 + zone) and External All Call Paging (code 1005).
No
Should extension have one-button access to External Paging?
Yes
In 1006, assign function keys for External Zone Paging (code 1004 + zone) and External All Call Paging (code 1005).
Do you change the Service Code for External Paging?
Yes
Refer to Flexible System Numbering feature.
No
Stop

Paging (Cont'd)

Programming (Cont'd)

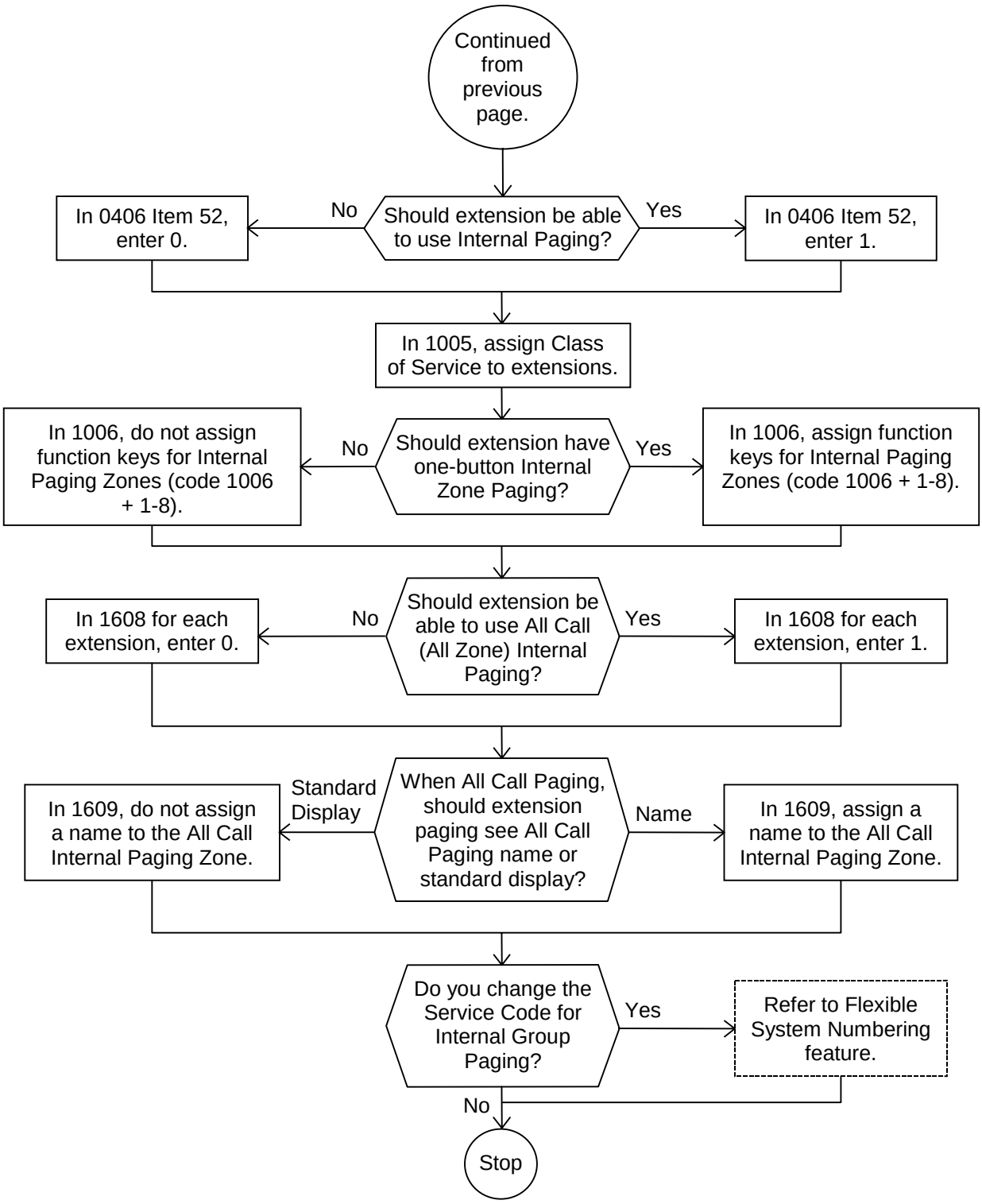
External Paging


Start
Do not assign more than 50 extensions to the same Paging Zone.
Should extension be in an Internal Paging zone?
No
In 1601, enter 0.
Yes
In 1601, assign an extension to an Internal Paging zone (1-8).
When Paging, should user see a Paging zone name or the zone number on the telephone display?
Number
In 1602, do not program names for the Internal Paging zones (1-8).
Name
In 1602, program names for the Internal Paging zones (1-8).
Should the tones that precede an Internal Page be normal volume, muted or turned off?
Turned off
In 1607, enter 2 for beeps.
Normal
In 1607, enter 0 for normal volume.
The system mutes the tones only if the user sets the telephone volume control switch to medium or high.
Muted
In 1607, enter 1 for muted volume.
If the interval is too short, Internal Paging announcements may be cut off.
Is the maximum duration setting for Internal Paging adequate?
No
In 0405 Item 18, set the Page Announcement Duration.
Yes
Continued on following page.

Paging (Cont'd)

Programming (Cont'd)

External Paging (Cont'd)


Continued from previous page.
Should extension be able to use Internal Paging?
No
In 0406 Item 52, enter 0.
Yes
In 0406 Item 52, enter 1.
In 1005, assign Class of Service to extensions.
Should extension have one-button Internal Zone Paging?
No
In 1006, do not assign function keys for Internal Paging Zones (code 1006 + 1-8).
Yes
In 1006, assign function keys for Internal Paging Zones (code 1006 + 1-8).
Should extension be able to use All Call (All Zone) Internal Paging?
No
In 1608 for each extension, enter 0.
Yes
In 1608 for each extension, enter 1.
When All Call Paging, should extension paging see All Call Paging name or standard display?
Standard Display
In 1609, do not assign a name to the All Call Internal Paging Zone.
Name
In 1609, assign a name to the All Call Internal Paging Zone.
Do you change the Service Code for Internal Group Paging?
Yes
Refer to Flexible System Numbering feature.
No
Stop

Paging (Cont'd)

Programming (Cont'd)

> 0119 – External Page and Doorphone CODEC Gain Type
Set the five CODEC gain types for External Page and Door Box ports.

> 0120 – External Page and Doorphone CODEC Gain Setup
Assign a CODEC gain type from Program 0119 to external Page and Door Box Ports.

> 0405 – System Timers, Item 18: Paging announcement duration
Set the maximum allowable duration for a Paging announcement.

> 0406 – COS Options, Item 22: External Paging
In an extension's COS, enable (1) or disable (0) the ability to use External Paging.

> 0406 – COS Options, Item 52: Internal Group Paging
In an extension's COS, enable (1) or disable (0) an extension's ability to use Internal Paging.

> 0511 – Service Code Setup, Part A Item 19: External paging
Assign a service code for external paging.

> 0511 – Service Code Setup, Part A Item 26: Internal group paging
Assign a service code for internal group paging.

> 1005 – Class of Service for Extension
Assign a Class of Service (1-10) to an extension.

> 1006 – Programming Function Keys
Assign function keys for External Paging zones (1004) and External All Page (1005).

> 1601 – Internal Paging Groups
Assign a extensions to use of 8 Internal Paging Groups.

> 1602 – Internal Paging Group Names
Program names for the Internal Paging Groups.

> 1604 – External Paging Zone Control
Assign options for each External Paging Zone (1-8): Splash Tone before Page, Background Music when idle and Alarm 1-8.

> 1606 – External Paging Zone Group
Assign each External Paging Zone (1-8) to an External Paging Group (1-8) used for accessing the zone.

> 1607 – Internal Paging Group Splash Tone Setup
For each Internal Paging Group (1-8), have normal (0), muted (1) or no (2) Internal Paging alert tones. If enabled (0 or 1), extensions hear two beeps before Paging announcements. If disabled, the extensions hear the announcement without the beeps. Muted tones can occur only if the extension user sets the telephone volume control switch to medium or high.

Paging (Cont'd)

Programming (Cont'd)

> 1608 – Internal All Call Paging Setup
Allow (1) or prevent (0) All Call Internal Paging for each extension.
If allowed, extension can place and receive All Call Internal Paging announcements. If prevented, extension can only make All Call Internal Paging announcements. Do not assign more than 50 extensions to the same All Call Paging Group. Internal All Call Paging Group member must participated in the normal internal paging groups.

> 1609 – Internal All Call Paging Name
Assign a name to the All Call Internal Paging Group. The name shows on the display of the telephone making the announcement.

Operation

Internal Paging

<Key Telephone>

To Page a Paging Group:

1. Press idle CL key.
2. Press the group's Internal Paging key
(PGM 1006 or SC 851: 1006 or SC 851: 1006 + 1-8).
OR
Dial 801( ) and the Paging group number (1-8).
3. Make announcement.
4. Press SPK to hang up.

To Page a Internal All Call Paging:

1. Press idle CL key.
2. Press the group's Internal Paging key
(PGM 1006 or SC 851: 1006+0) and dial 0.
OR
Dial 801( ) and the All Call Internal Group number (0).
3. Make announcement.
4. Press SPK to hang up.

<Single Line Telephone>

To Page a Paging Group:

1. Off hook.
2. Dial 801( ) and the Paging group number (1-8).
3. Make announcement.
4. On hook.

Paging (Cont'd)

Operation (Cont'd)

Internal Paging (Cont'd)

To Page a Internal All Call Paging:

1. Off hook.
2. Dial 801( ) and the All Call Internal Group number (0).
3. Make announcement.
4. Press SPK to hang up.

External Paging

<Key Telephone>

To Page into an external zone:

1. Press idle CL key.
2. Dial 803( ).
3. Dial the External Paging Group code (1-8 or 0 for All Call).

   OR

   Press External Paging key (PGM 1006 or SC 851: 1004 for External Paging zones or 1005 for External All Call Paging).

<Single Line Telephone>

To Page into an external zone:

1. Off hook.
2. Dial 803( ).
3. Dial the External Paging Group code (1-8 or 0 for All Call).

Paging Combine

<Key Telephone>

To Page the Paging Combine:

1. Press idle CL key.
2. Dial 751( ).
3. Dial the External Paging Group code (1-8).

<Single Line Telephone>

To Page the Paging Combine:

1. Off hook.
2. Dial 751( ).
3. Dial the External Paging Group code (1-8).

Park Hold

Description

Park Hold places a call in a waiting state (called a Park Orbit) so that an extension user may pick it up. The system has up to 8 Park Hold Orbits. After parking a call in orbit, a user can Page the person receiving the call and hang up. The paged party dials a code or presses a programmed Park Hold Orbit key to pick up the call. With Park Hold, it is not necessary to locate a person to handle their calls.

The held line will automatically be transferred to the other extension by going on-hook after dial the desired extension number.

Conditions

This feature available for key telephone and single line telephone.

An extension can park a call in any of the 8 Park Hold Orbits. However, an extension can only pick up a call Parked by a member of its own Park Hold group (see Program 1014).

Default Setting

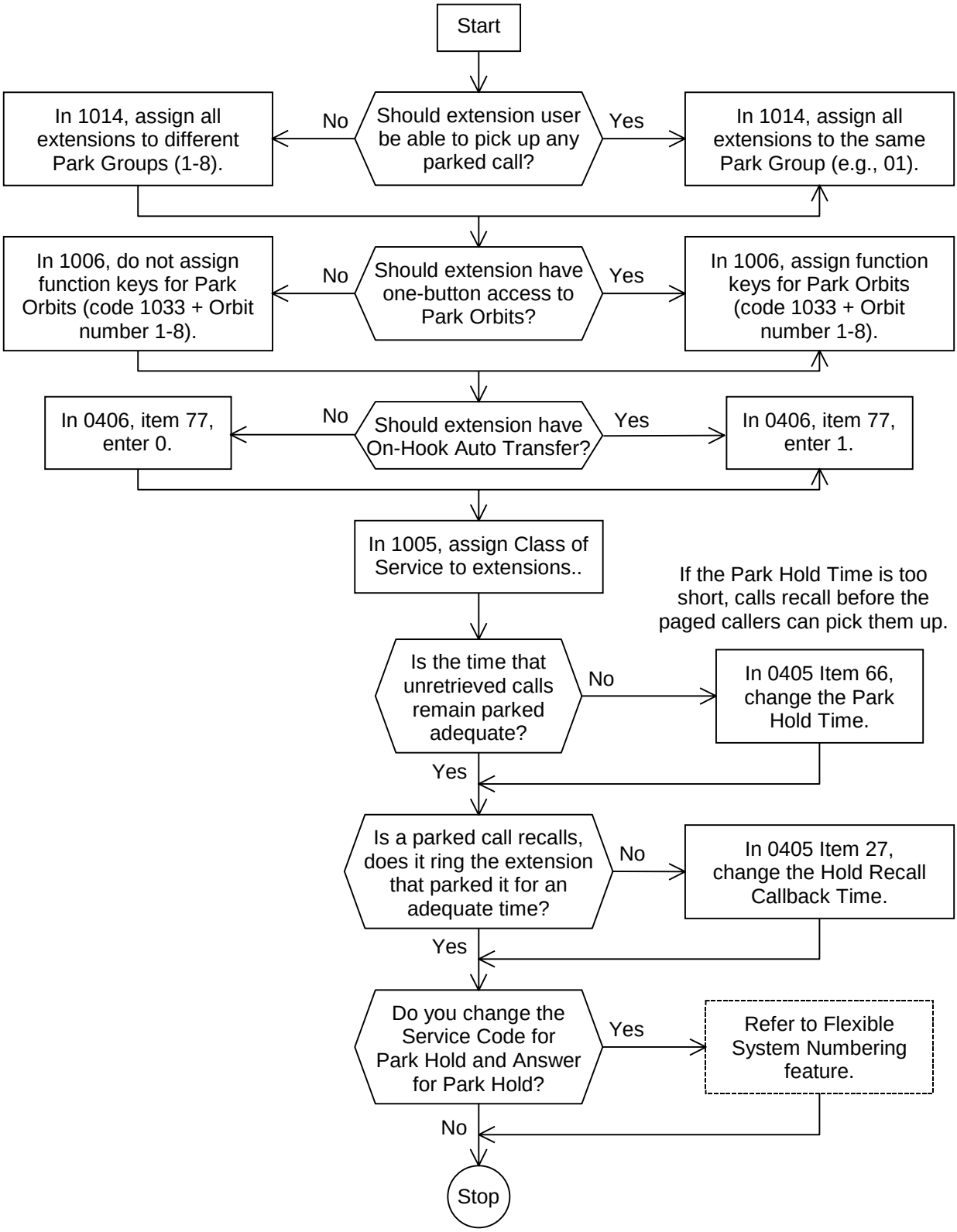
- Hold Recall Callback Time is 30 seconds.
- Park Hold Time is 30 seconds.
- All extensions in Park Hold Group 1.
- No Park Hold Orbit keys defined.
- All extension users can use On-Hook Auto Transfer feature.

Options

None

Park Hold (Cont'd)

Programming


Start
Should extension user be able to pick up any parked call?
No
In 1014, assign all extensions to different Park Groups (1-8).
Yes
In 1014, assign all extensions to the same Park Group (e.g., 01).
Should extension have one-button access to Park Orbits?
No
In 1006, do not assign function keys for Park Orbits (code 1033 + Orbit number 1-8).
Yes
In 1006, assign function keys for Park Orbits (code 1033 + Orbit number 1-8).
Should extension have On-Hook Auto Transfer?
No
In 0406, item 77, enter 0.
Yes
In 0406, item 77, enter 1.
In 1005, assign Class of Service to extensions..
If the Park Hold Time is too short, calls recall before the paged callers can pick them up.
Is the time that unretrieved calls remain parked adequate?
No
In 0405 Item 66, change the Park Hold Time.
Yes
Is a parked call recalls, does it ring the extension that parked it for an adequate time?
No
In 0405 Item 27, change the Hold Recall Callback Time.
Yes
Do you change the Service Code for Park Hold and Answer for Park Hold?
Yes
Refer to Flexible System Numbering feature.
No
Stop

Park Hold (Cont'd)

Programming (Cont'd)

> 0405 – System Timers, Item 27: Normal hold callback timer
A call left park held too long recalls the extension that initially park held it for this interval.

> 0405 – System Timers, Item 66: Park hold callback time
Set the Park Hold Timer (0-64800 seconds). A call left park held longer than interval will recall the extension that initially park held it.

> 0406 – Class of Service Options, Item 77: On-Hook auto transfer (Park Hold)
"On-hook auto transfer for Park Hold" is defined either enable(1) or disable (0) in extension's Class of Service.

> 0511 – Service Code Setup, Part A Item 55: Park hold
Assign a service code for park hold is dial 831.

> 0511 – Service Code Setup, Part A Item 56: Answer for park hold
Assign a service code for answer for park hold.

> 1005 – Class of Service for Extensions
Assign a Class of Service (1-10) to extension.

> 1006 – Programming Function Keys
Assign a keys as a Park Hold Orbit key (code 1033 plus Park Hold Group number).

> 1014 – Park Hold Group
Assign an extension to a Park Hold Group (1-8). An extension can only pick up a call Parked by a member of its own Park Hold Group.

Related Features

Hold

A user can place a call in a temporary waiting state without putting it in orbit.

Programmable Function Key

Function keys simplify Park Hold operation.

Park Hold (Cont'd)

Operation

<Key Telephone>

To Park Hold a call:

You can Park Hold Intercom of Trunk Line calls.

1. Press Park Hold key (PGM 1006 or SC 851: 1033).
2. Use Paging to announce call.
3. Press SPK to hang up.

OR

1. Press HOLD.
2. Dial 831 ( ).
3. Dial Park Hold orbit (1-8).
4. Use Paging to announce call.
5. Press SPK to hang up.

To pick up a park held call.

1. Lift handset.
2. Press Park Hold key (PGM 1006 or SC 851: 1033).

OR

1. Press idle CL key.
2. Dial 861( ).
3. Dial announced Park orbit (1-8).

<Single Line Telephone>

To Park Hold a call:

You can Park Hold Intercom or Trunk Line calls.

1. Press HOLD.
2. Dial 831 ( ).
3. Dial Park Hold orbit (1-8).
4. Use Paging to announce call.
5. Press SPK to hang up.

To pick up a parked call.

1. Off hook.
2. Dial 861( ).
3. Dial announced Park orbit (1-8).

Park Hold (Cont'd)

Operation (Cont’d)

<Key Telephone>

To use On-hook auto transfer feature to transfer a call:

1. Make conversation with outside party.
2. Press Park Hold key (PGM 1006 or SC 851: 1033).
3. Dial desired extension number.
4. Hang up or press “TRFR” key. (This call shall be transferred)

<Single Line Telephone>

To use On-hook auto transfer feature to transfer a call:

1. Make conversation with outside party.
1. Do hook-flash for hold the line.
2. Dial 831 ( ).
3. Dial Park Hold orbit (1-8).
4. Dial desired extension number.
5. Hang up. (This call shall be transferred)

PBX Compatibility

Description

You can connect your phone system trunks to Centrex/PBX lines, rather than to telco Trunk line circuits. This makes the trunk inputs into the system single line telephone compatible Centrex/PBX extensions, rather than telco circuits. PBX Compatibility lets the system be a node (i.e., satellite) in a larger private telephone network. To place outside calls when the system is behind a PBX, phone system users must first dial the PBX's trunk access code (usually 9).

The system provides the following PBX Compatibility options:

- **PBX Trunk Access Code Screening**

  The system can monitor the numbers users dial and screen for PBX trunk access codes. The system can screen for up to 4 trunk access codes. The codes can be one or two digits long, consisting of the digits 0-9, # and *. (You use the FLSH key as a wild card entry.)

- **PBX Trunk Line Toll Restriction**

  The system can provide the Toll Restriction, for the PBX Trunk Line, or restriction can be handled solely by the connected PBX. If the phone system provides the restriction, it restricts the digits dialed after the PBX access code.

- **PBX Call Restriction**

  When the phone system does the Toll Restriction, it can further restrict users from dialing PBX extensions. In this case, the only valid numbers are those dialed after the PBX trunk access code. The only PBX facility phone system users can access are the PBX's outside Trunk Lines.

- **Automatic Pause**

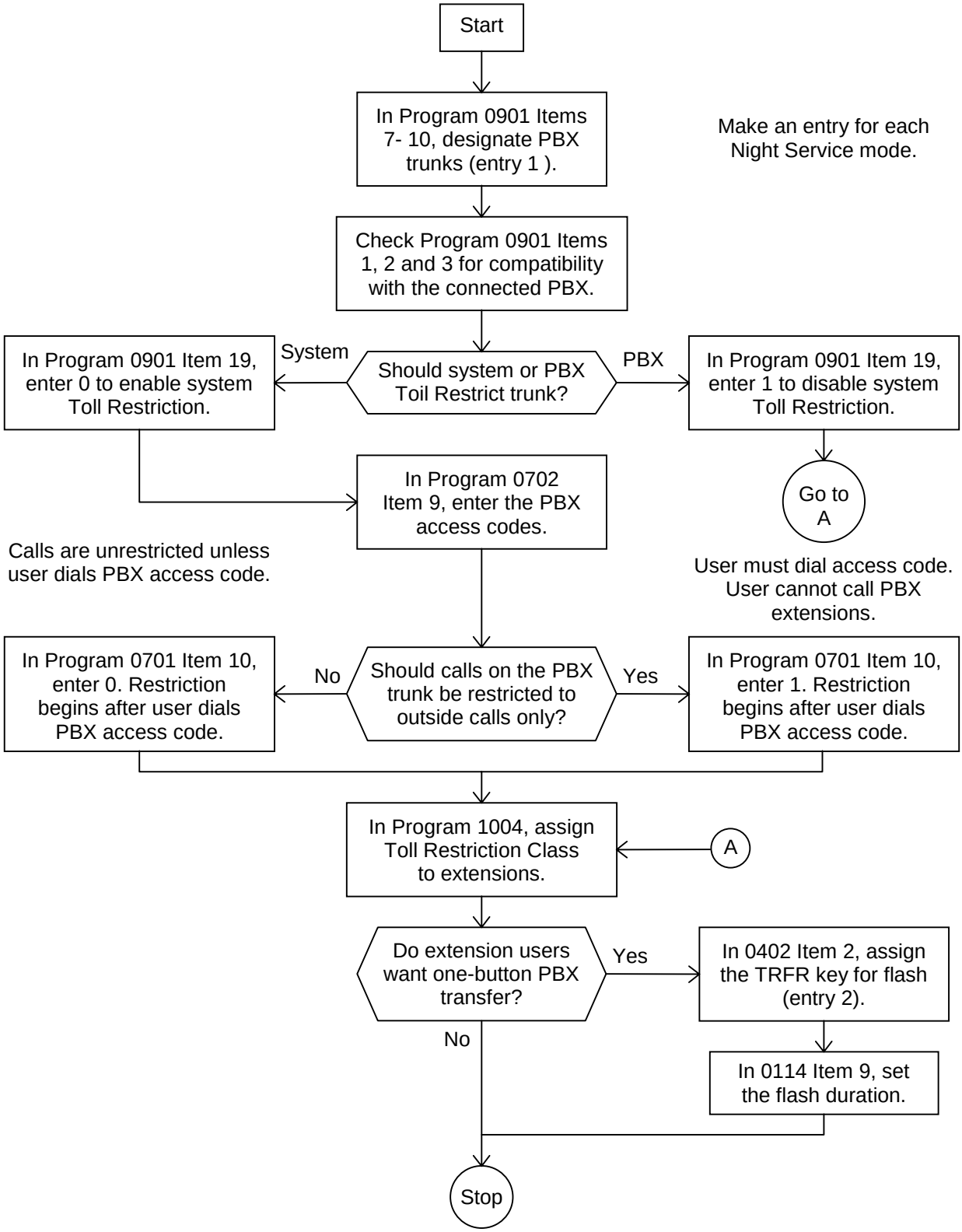
  The system automatically pauses when it sees a PBX trunk access code during manual dialing, Abbreviated Dialing, Last Number Dialing, Automatic Repeat Dialing and Save number Dialed. This gives the connected PBX time to set up its Trunk Line circuits.

Conditions

None

PBX Compatibility (Cont'd)

Programming


Start
In Program 0901 Items 7- 10, designate PBX trunks (entry 1).
Make an entry for each Night Service mode.
Check Program 0901 Items 1, 2 and 3 for compatibility with the connected PBX.
In Program 0901 Item 19, enter 0 to enable system Toll Restriction.
System
Should system or PBX Toil Restrict trunk?
PBX
In Program 0901 Item 19, enter 1 to disable system Toll Restriction.
In Program 0702 Item 9, enter the PBX access codes.
Go to A
Calls are unrestricted unless user dials PBX access code.
User must dial access code. User cannot call PBX extensions.
In Program 0701 Item 10, enter 0. Restriction begins after user dials PBX access code.
No
Should calls on the PBX trunk be restricted to outside calls only?
Yes
In Program 0701 Item 10, enter 1. Restriction begins after user dials PBX access code.
In Program 1004, assign Toll Restriction Class to extensions.
A
Do extension users want one-button PBX transfer?
Yes
In 0402 Item 2, assign the TRFR key for flash (entry 2).
No
In 0114 Item 9, set the flash duration.
Stop

PBX Compatibility (Cont'd)

Default Setting

- PBX call restriction disabled.
- No PBX access codes entered.
- Trunk Lines are DTMF, have immediate ring detect and use CODEC gain 1.
- Trunk Lines are stand-alone (not set for behind PBX).
- Toll Restriction enabled for all PBX Trunk Lines.

Options

None

Programming (Cont'd)

Refer to the Programming Flowchart on the following page.

> 0114 – Analog Trunk Line (ATRU Card) Timers
If the TRFR key is set for transfer (in Program 0402, Item 2), use this program to set the duration of the flash that occurs when a user presses the TRFR key.

> 0402 – System Options, Part B, Item 2: Transfer key operating mode
To simplify PBX transfer assign the TRFR key for flash (entry 2). Set the duration of the flash in Program 0114 Item 9.

> 0701 – Toll Restriction Class, Item 10: Restriction of Calls Within PBX
For each Toll Restriction Class, enter 1 to restrict calls on the PBX Trunk Line to outside calls only. Enter 0 to allow users to dial PBX extensions.

> 0702 – Toll Restriction Tables, Item 9: Trunk Line Access Code of PBX
Enter the system PBX access codes. The system can have up to 10 codes.
A code can be one or two digits long. Valid enters are 0-9, # and *.
Use the FLSH key as a "don't care" digit.

> 0901 – Basic Trunk Line Port Setup, Part A
Items 1(DP/DTMF), 2(Incoming Type) and 3(CODEC Cain Type)
Set these options for compatibility with the connected PBX.

> 0901 – Basic Trunk Line Port Setup, Part A Items 7-10: Behind PBX
For each PBX Trunk Line port. enable (0) or disable (1) Toll Restriction.

> 0901 – Basic Trunk Line Port Setup, Part A Item 19: Restrict
Assign a restrict or non-restrict for each PBX line (Trunk line).

> 1004 – Toll Restriction
Assign a Toll Restriction Class (1-8) to each extension.

PBX Compatibility (Cont'd)

Related Features

Abbreviated Dialing

- The system automatically pauses after it finds a PBX access code in an Abbreviated Dialing bin.
- If Abbreviated Dialing routes a call to a PBX Trunk Line, it does not automatically insert a PBX access code. It outdials the digits just as they are stored.

Trunk Line Calls, Answering and Ring Groups

Users answer incoming calls on PBX Trunk Lines, it does not automatically insert a PBX access and Ring Group programming applies.
Refer to these features for more details.

Trunk Line Calls, Placing

Except for dialing the PBX access code, users place calls on PBX Trunk Lines just like other Trunk Lines. All of the relevant access programming applies. Refer to the Central Office Calls Placing feature for more details.

Direct Inward Lines

You can have DILs route from the connected PBX. Users can access these Trunk Lines for outgoing PBX calls. All PBX Compatibility restrictions and programming apply.

Flash

Flash may allow access to certain PBX features-like Transfer. Make sure you program Flash for compatibility with the connected PBX.

Pulse to Conversion

The system does not provide automatic Pulse to Tone Conversion after outdialing the PBX Trunk Line access code.

Toll Restriction

PBX Trunk Lines can follow normal system Toll Restriction. Refer to the programming chart on the previous page.

Trunk Line Groups and Trunk Line Group Routing

- Users can get outbound access to PBX Trunk Lines through Trunk Line Groups and/or Trunk Line Group Routing. All Compatibility restrictions and programming apply.
- If the system routes a call to a PBX Trunk Line, it does not automatically insert the PBX access code. It outdials the call just as the user dialed it.

PBX Compatibility (Cont'd)

Operation

<Key Telephone>

To place a call over a PBX Trunk Line:

1. Press idle CL key.
2. Dial 804( ).
3. Dial PBX Trunk Line group number (1-9 or 01-16).
4. Dial PBX access code and number.

OR

1. Press PBX Trunk Line group key (PGM 1006 or SC 851: 1012).
2. Dial PBX access code and number.

OR

1. Press idle CL key.
2. Dial 9( ).
3. Dial PBX access code and number.

OR

1. Press PBX Trunk Line Group Routing key (PGM 1006 or SC 851: 1011).
2. Dial PBX access code and number.

OR

1. Press idle CL key.
2. Dial 805( ).
3. Dial PBX Trunk Line number (e.g., 005 for line 5).
4. Dial PBX access code and number.

OR

1. Press PBX Trunk Line key (PGM 1006 or SC 851: 1 to 52).
2. Dial PBX access code and number.

Note: In all cases above, Toll Restriction may prevent your call.

PBX Compatibility (Cont'd)

Operation (Cont'd)

<Single Line Telephone>

To place a call over a PBX Trunk Line:

1. Press idle CL key.
2. Dial 804( ).
3. Dial PBX Trunk Line group number (1-9 or 01-16).
4. Dial PBX access code and number.

OR

1. Press idle CL key.
2. Dial 9( ).
3. Dial PBX access code and number.

OR

1. Press idle CL key.
2. Dial 805( ).
3. Dial PBX Trunk Line number (e.g., 005 for line 5).
4. Dial PBX access code and number.

Note: In all cases above, Toll Restriction may prevent your call.

PC Attendant

Description

Your PC can be performed as like operator console.

For the installation, PC Attendant interface board should be inserted in your PC. And either headset or handset shall be connected with the board. The board shall be connected to one of DSTU port. By installing PC Attendant software in the PC, then the PC can be performed as computer assisted operator console.

Conditions

This feature is specially available for PC Attendant package.

Default Setting

No PC Attendant is set.

Options

PC Attendant package

Related Features

None

Programming

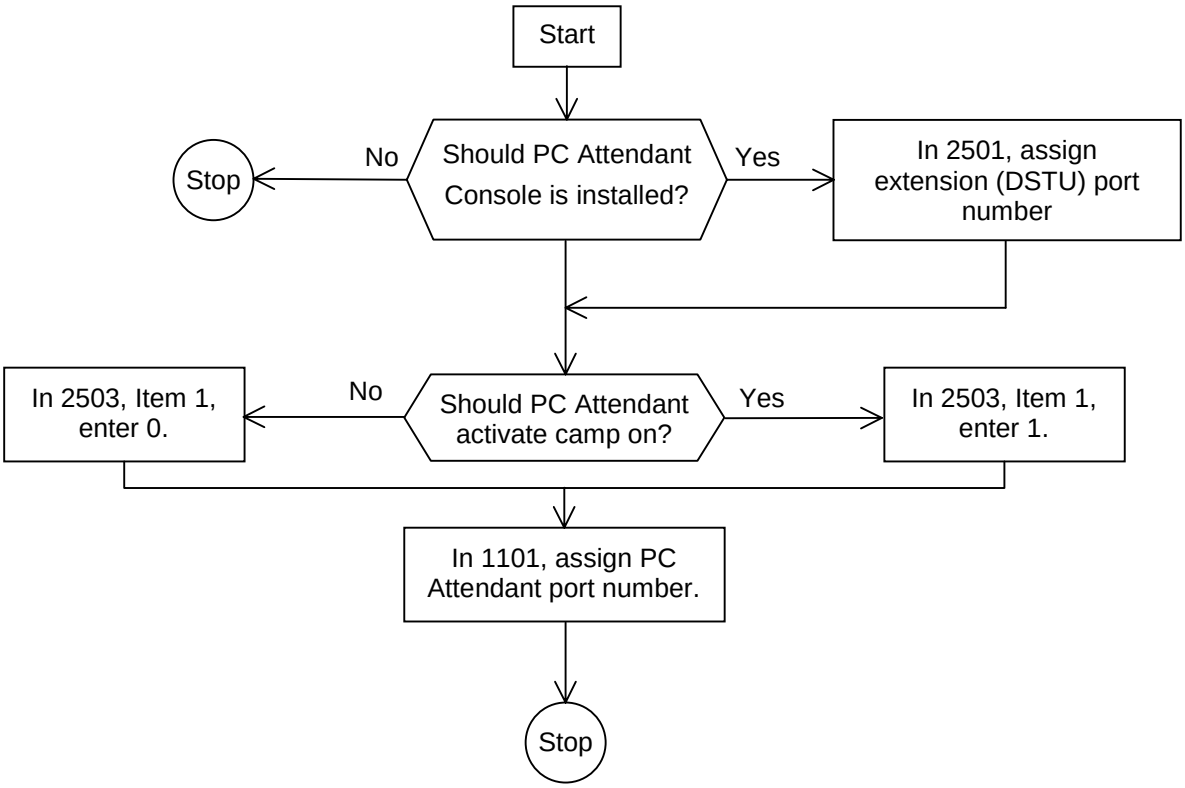
> 1101 – DSS Console Extension Assignment
  Enter extension port number for PC Attendant interface board is connected on DSTU.

> 2501 – PC Attendant Port Setup
  Enter extension port number for PC Attendant interface board is connected on DSTU.

> 2503 – PC Attendant Operation, Item1 Attendant Camp on
  Enter disable (0) or enable (1) for Attendant camp on function.

PC Attendant (Cont'd)

Programming (Cont'd)



Operation

Refere to "PC ATTENDANT CONSOLE USER'S MANUAL" for the details.

PC Based Voice Mail Connection (NVM-Series)

Description

The Voice Mail Integration feature allows a third party Voice Mail system to be connected to the dX-Z system. The third party Voice Mail system must be connected to the analogue extension ports of the dX-Z system. The analogue extension ports must be configured as VX ports (Voice Mail ports). The dX-Z can be configured to provide up to 16 Voice Mail ports. The level of integration between the Voice Mail system and the dX-Z is dependant on the features the Voice Mail system supports. The features available with the dX-Z Voice Mail Integration are;-

- Call Forwarding

- Forward all calls to the Voice Mail system
- Forward calls on Ring No Answer to the Voice Mail system
- Forward calls on Busy to the Voice Mail system
- Forward Calls on Ring No Answer/Busy to the Voice Mail system

- Message Waiting

- Key Telephone message waiting indication given on Message Key
- Key Telephone number of messages (01-32)
- Single Line Telephone distinctive message waiting dial tone

- Conversation Recording

- Key Telephones can record external calls into an individual mailbox

- Disconnect Detect

- Incoming caller disconnect detection for ISDN trunks, E&M trunks, Internal calls and Analogue trunks with disconnect clearing

PC Based Voice Mail Connection (NVM-Series) (Cont'd)

Conditions

Call forwarding options are available for Key Telephones and single line telephones. A call forward on busy and ring no answer can be set simultaneously (the key telephone display shows forward on no answer).

Key Telephones give message waiting on the Message key, if no Message key is programmed message waiting will be given on the MW lamp. Display Key Telephones also give the number of messages if the voice mail system provides this information.

Call forwarding diverts internal calls, DDI calls and Tie Line calls to the Voice Mail system. Calls presented at the SLT or key telephone as Ringing Groups, Department Group calls or ACD group calls are not diverted to the Voice Mail system.

Conversation recording requires a conference block to be assigned.

Default Settings

No ports are assigned as Voice Mail ports.

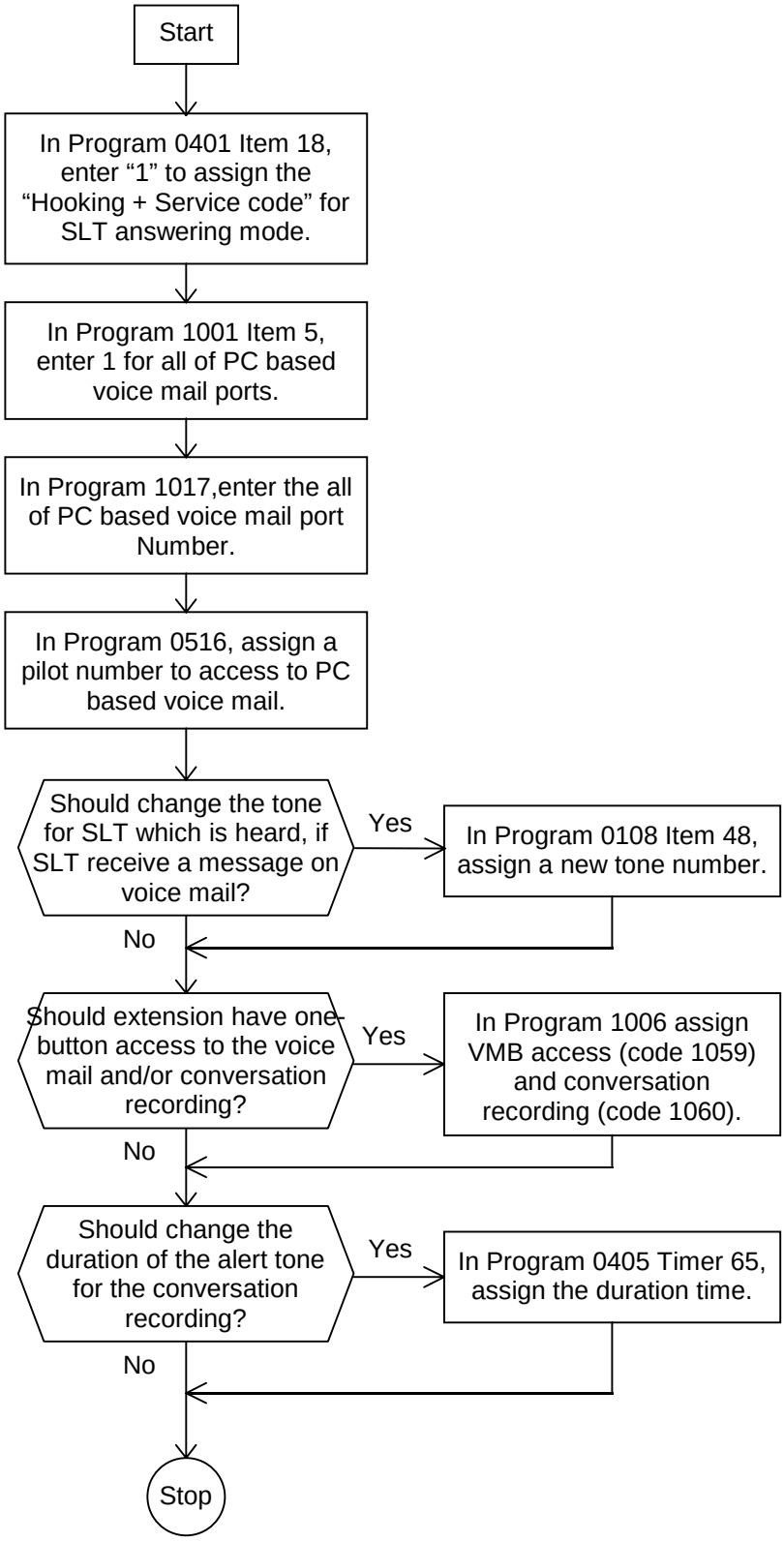
Conversation Recording Warn Tone is off

Options

- DX2E-4ASTU-A1

PC Based Voice Mail Connection (NVM-Series) (Cont'd)

Programming


Start
In Program 0401 Item 18, enter "1" to assign the "Hooking + Service code" for SLT answering mode.
In Program 1001 Item 5, enter 1 for all of PC based voice mail ports.
In Program 1017,enter the all of PC based voice mail port Number.
In Program 0516, assign a pilot number to access to PC based voice mail.
Should change the tone for SLT which is heard, if SLT receive a message on voice mail?
Yes
In Program 0108 Item 48, assign a new tone number.
No
Should extension have one-button access to the voice mail and/or conversation recording?
Yes
In Program 1006 assign VMB access (code 1059) and conversation recording (code 1060).
No
Should change the duration of the alert tone for the conversation recording?
Yes
In Program 0405 Timer 65, assign the duration time.
No
Stop

PC Based Voice Mail Connection (NVM-Series) (Cont'd)

Programming (Cont'd)

> 0108 – Tone 48 : Single Line Telephone Voice Mail Message Waiting Tone

> 0401 – System Options, Part A Item 18 : SLT Answering mode
Enter 1 for this option to enable Conversation Record

> 0405 – System Timers (Part A) Item 65 : Record Alert Tone Interval Time. Sets the interval between record warning tone sent to line
Item 1 : Delayed Call Forwarding Time. Sets the Ring No Answer Forward time.

> 0516 – Voice Mail Ports Dial Number : Assign a Voice Mail pilot number.
Do not assign the same number the extension number of PC based voice mail ports.

> 1001 – Basic Extension Port Setup Item 5 : Terminal Type
Set all ASTU ports used for Voice Mail as type 1

> 1006 – Programming Function Keys
Assign a Voice Mail Key to a Key Telephone (code 1059).
Optional :- Assign a Conversation Record key to a Key Telephone (code 1060).

> 1017 – Assign Voice Mail Ports
Assign one or more ports for connection of the Voice Mail system.

Related Features

Forwarding calls to the Voice Mail system uses the existing call forward features.

One Touch keys can be used to simplify the call forwarding operation.

Programmable Function Key

There are two keys specifically for Voice Mail system operation:

A function key defined as a Message key gives Voice Mail message waiting indication and simplifies both transferring calls to the Voice Mail system and accessing the Voice Mail system.

A function key defined as a Conversation Recording key allows Key Telephone users to record conversations with external callers to the Voice Mail system.

PC Based Voice Mail Connection (NVM-Series) (Cont'd)

Operation

<Key telephone>

To Activate Call Forward to Voice Mail System ;-

1. Press idle CL key
2. Dial call forwarding code;
   843 ( ) for Divert on Busy
   845 ( ) for Divert on Ring No Answer
   848 ( ) for All Call Forward
   OR
   Press Call Forwarding key.
   PGM 1006 or 851 : code 1002 for Divert on Busy
   PGM 1006 or 851 : code 1003 for Divert on Ring No Answer
   PGM 1006 or 851 : code 1055 for All Call Forward
3. Dial 1 plus the **pilot number** of the Voice Mail system
4. Press SPK to hang up.

To Cancel Call Forwarding ;-

1. Press an idle CL key.
2. Dial call forwarding code;
   843 ( ) for Divert on Busy
   845 ( ) for Divert on Ring No Answer
   848 ( ) for All Call Forward
   OR
   Press Call Forwarding key.
   PGM 1006 or 851 : code 1002 for Divert on Busy
   PGM 1006 or 851 : code 1003 for Divert on Ring No Answer
   PGM 1006 or 851 : code 1055 for All Call Forward
3. Dial 0 to cancel
4. Press SPK to hang up.

PC Based Voice Mail Connection (NVM-Series) (Cont'd)

Operation (Cont'd)

<Single Line Telephone>

To Activate Call Forward to Voice Mail System ;-

1. Off Hook
2. Dial call forwarding code;
   843 ( ) for Divert on Busy
   845 ( ) for Divert on Ring No Answer
   848 ( ) for All Call Forward
3. Dial 1 plus the **pilot number** of the Voice Mail system
4. On Hook.

To Cancel Call Forwarding

1. Off Hook
2. Dial call forwarding code;
   843 ( ) for Divert on Busy
   845 ( ) for Divert on Ring No Answer
   848 ( ) for All Call Forward
3. Dial 0 to cancel
4. On Hook.

<Key Telephone>

Voice Mail Message Waiting Indication

When the Voice Mail systems sets message waiting for the key telephone the Message key flashes red. If a Message key is not assigned the MW lamp flashes red.

Display your Message Waiting list

If the Voice Mail system provides information on the number of voice mail messages the list can be interrogated by;

1. Press CHECK.
2. Dial 841 ( ).
3. Press VOL (up) or VOL (down) to scroll through your messages
   The number of Voice Mail messages are shown first on the list followed by message waiting set by other extensions.
4. Press CLEAR to return to the time and date display.

PC Based Voice Mail Connection (NVM-Series) (Cont'd)

Operation (Cont'd)

<Single Line Telephone>

Voice Mail Message Waiting Indication

When the Voice Mail systems sets message waiting for the single line telephone the Signal Line Telephone dial tone changes to indicate there is a message waiting.

<Key Telephone>

Accessing the Voice Mail system

1. Press your Message key

OR

Dial the Voice Mail system pilot number

This establishes a call to the Voice Mail system.

<Single Line Telephone>

Accessing the Voice Mail system

1. Dial the Voice Mail system pilot number

This establishes a call to the Voice Mail system.

<Key Telephone>

Calling an extension and leaving a message in their mail box

1. Dial the extension number
2. The extension is Busy or Ring No Answer
3. Press the Message key.

Pressing the Message key will take you directly into their mail box.

4. Leave your message
5. Go on hook

PC Based Voice Mail Connection (NVM-Series) (Cont'd)

Operation (Cont'd)

<Key Telephone>

Transferring a call to someone else's mail box

Method 1 : You do not know they are unavailable until you call them ;-

1. Place the caller on hold, by pressing the Hold key
2. Dial the required extension number
3. If there is ring no answer or they are busy press your Message key.
4. Wait for the voice mail system to answer then press the transfer key (TRFR).

Method 2 : You know they are unavailable before you call them ;-

1. Place the caller on hold, by pressing the Hold key
2. Press your Message key
3. Dial the required extension number
4. Press the transfer key (TRFR)

<Key Telephone>

Conversation Recording (External calls only)

1. Answer incoming call by going off hook
2. To start Conversation Recording press the Conversation Recording key.

   The Conversation Recording key flashes red and the key telephone display indicates recording has started.
3. To end conversation record;-

   Press the Conversation Recording key.

   The Conversation Recording key goes idle (stops flashing red) and the recording message on the display ends.

   OR

   End the conversation by going on hook.

PC Based Voice Mail Connection (NVM-Series) (Cont'd)

Appendix

VOICE MAIL INTEGRATION PROTOCOL

Function	Code	Voice Mail System Plan	Reason for Connection to VM System
1.)Remote Log On (Internal)	***1XXX	Connect user to prompting routine for unknown user	Internal call to voice mail system from extension XXX dialling master extension number of voice mail system. User has not indicated intent to enter a voice mail box and must be queried as to which voice mail box he wishes to enter.
2.)Direct Log-On	#XXX	Connect user to voice mail box for extension XXX. Request password if required.	External call with user keying #XXX, or internal call to voice mail system from extension XXX by dialling a pre-programmed voice mail key, hereafter called MESSAGE key. User desires to enter voice mail box for extension XXX.
3.) Transfer Message	***2TTTYYY or *YYY	Record a message to be placed in voice mail box of extension YYY.	User is transferring a trunk call to voice mail system to leave a message for voice mail box of extension YYY. May be activated in DX2E by key sequence: Transfer; Message; YYY.
4.) Record Message for Called Extension	***2XXXYYY	Record a message to be placed in voice mail box of extension YYY. Store source extension number XXX for automatic reply feature.	User has placed a call from extension XXX to extension YYY, which is busy or does not answer, and wishes to leave a message in the mail box of extension YYY.
5.) Forward - All Calls	***3UUUZZZ	Play Personal Greeting and/or record a message to be placed in the voice mail box of extension ZZZ. Store source extension/trunk UUU for automatic reply feature.	Extension or trunk UUU called extension ZZZ and was forwarded by the DX2E to the voice mail box of extension ZZZ.
6.) Forward - Busy	***4UUUZZZ	Play Personal Greeting and/or record a message to be placed in the voice mail box of extension ZZZ. Store source extension/trunk UUU for automatic reply feature.	Extension or trunk UUU called extension ZZZ, which is busy, and was forwarded by the DX2E to the voice mail box of extension ZZZ.
7.) Forward - RNA	***5UUUZZZ	Play Personal Greeting and/or record a message to be placed in the voice mail box of extension ZZZ. Store source extension/trunk UUU for automatic reply feature.	Extension or trunk UUU called extension ZZZ, which does not answer, and was forwarded by the DX2E to the voice mail box of extension ZZZ.
8.) Message Status Lamp Update	Off Hook Receive Dial Tone #XXXNN, Receive Dial Tone #XXXNN, ...	Transmit message lamp status for each voice mail box. Updates may be sent individually or concatenated with pauses and dial tone detection between status updates	Voice Mail System is updating message status lamps. NN=00 means no messages and turns off NN=00 turns lamp on. Display sets may be equipped to display NN when messages are left.
9.) Remote Log-On	***6TTT	Play welcome greeting and connect user to prompting routine for unknown user.	External (trunk) call to voice mail system from trunk TTT. User has not indicated intent to enter voice mail box and must be queried as to which voice mail box he wishes to enter.
10.) DX2E Reset	***7	Update message status lamps	The DX2E requests a complete update of message status lamps

PC Based Voice Mail Connection (NVM-Series) (Cont'd)

Appendix (Cont'd)

VOICE MAIL INTEGRATION PROTOCOL (Cont'd)

Function	Code	Voice Mail System Plan	Reason for Connection to VM System
11.) Conversation Record	***8NNN	Record a message to be placed in voice mail box of extension NNN. Warning tones should be played every 15 seconds	Extension NNN wishes an established conversation to be recorded and deposited in voice mail box extension NNN. The DX2E establishes a conference and connects the correct audio path to the voice mail port. This feature may be accessed by a pre-programmed function key on the DX2E.
12.) Disconnect	9999	Terminate	1. DX2E has completed a screen transfer from a voice mail system to internal extension. 2. Calling party disconnect during attempted screened transfer by voice mail 3. Calling party disconnect.

Notes:

XXX = Source Extension NNN = Extension number requesting service

YYY = Destination Extension NN = Message Count (00-32)

UUU = Called extension or trunk

ZZZ = Called Extension

TTT = Trunk Number

PC Based Voice Mail Connection (NVM-Series) (Cont'd)

Appendix (Cont'd)

Hold and Transfer

Hold:- Timed Break Recall

Screened Transfer:- Recall, dial 1 XXX, either wait for answer or go on hook (forced transfer).

Unscreened Transfer:- Recall, dial XXX, either wait for answer or go on hook (forced Transfer). If the called extension answers, the held call is automatically transferred by the DX2E.

Retrieve from hold:- Recall, pause, * 7 :- Please note *7 is not always required

For clarification of the hold transfer operation please refer to the attached sheets.

XXX= Called ext number

PC Based Voice Mail Connection (NVM-Series) (Cont'd)

Appendix (Cont'd)

Incoming Trunk Answered and Unscreened Transferred to Ext 200

Call	Action	Result
Hold and retrieve	1.Incoming call on TRK1 answered by SLT 2. SLT presses Recall 3. SLT presses Recall 4. SLT presses * 7	1. ***6001 sent to SLT 2. MOH to TRK 1 starts SLT hears fast dial tone 3. MOH to TRK1 stops SLT hears normal dial tone 4. SLT connected to TRK1
Hold, enquiry call to RNA/Busy, retrieve call	1. Incoming call on TRK1 answered by SLT 2. SLT presses Recall 3. SLT dials 200 4. Ext 200 is Ring No Answer/Busy 5. SLT presses Recall 6. SLT presses * 7	1. ***6001 sent to SLT 2. MOH to TRK 1 starts SLT hears fast dial tone 3/4. Ext 200 rings SLT hears ring tone or Ext 200 Busy SLT hears Busy tone 5. MOH to TRK1 stops SLT hears normal dial tone 6. SLT connected to TRK1
Hold, forced transfer to ext 200 which is RNA/Busy	1.Incoming call on TRK1 answered by SLT 2. SLT presses Recall 3. SLT dials 200 4. Ext 200 is Ring No Answer/Busy 5. SLT goes on hook 6. Transfer recall timer expires (default 30 secs) 7. SLT answers recalled call	1. ***6001 sent to SLT 2. MOH to TRK 1 starts SLT hears fast dial tone 3/4. Ext 200 rings SLT hears ring tone or Ext 200 Busy SLT hears Busy tone 5. TRK1 transferred to Ext 200 6. Call recalls at SLT after timer if RNA or immediately if Busy 7. SLT answers and hears either ***4001200 (Busy) or ***5001200 (RNA)
Hold, enquiry call to ext 200 and extension 200 answers	1.Incoming call on TRK1 answered by SLT 2. SLT presses Recall 3. SLT dials 200 4. Ext 200 Answers 5. SLT goes on hook	1. ***6001 sent to SLT 2. MOH to TRK 1 starts SLT hears fast dial tone 3. Ext 200 rings SLT hears ring tone 4. TRK1 connected to Ext 200 automatically. SLT hears Busy tone 5. SLT goes on hook

PC Based Voice Mail Connection (NVM-Series) (Cont'd)

Appendix (Cont'd)

Incoming Trunk Answered and Screened Transferred to Ext 200

Call	Action	Result
Hold and retrieve	1.Incoming call on TRK1 answered by SLT 2. SLT presses Recall 3. SLT presses Recall 4. SLT presses * 7	1. ***6001 sent to SLT MOH to TRK 1 starts SLT hears fast dial tone MOH to TRK1 stops SLT hears normal dial tone SLT connected to TRK1
Hold, enquiry call to RNA/Busy, retrieve call	1.Incoming call on TRK1 answered by SLT 2. SLT presses Recall 3. SLT dials 1200 4. Ext 200 is RNA/Busy 5. SLT presses Recall 6. SLT presses * 7	1. ***6001 sent to SLT 2. MOH to TRK 1 starts SLT hears fast dial tone 3/4. Ext 200 rings SLT hears ring tone or Busy tone 5. MOH to TRK1 stops SLT hears normal dial tone 6. SLT connected to TRK1
Hold, forced transfer to ext 200 which is RNA/Busy	1.Incoming call on TRK1 answered by SLT 2. SLT presses Recall 3. SLT dials 1200 4. Ext 200 is Ring No Answer/Busy SLT goes on hook Transfer recall timer expires (default 30 secs) 7. SLT answers recalled call	1. ***6001 sent to SLT 2. MOH to TRK 1 starts SLT hears fast dial tone 3/4. Ext 200 rings SLT hears ring tone or Ext.200 Busy SLT hears Busy tone 5. TRK1 transferred to Ext.200 6. Call recalls at SLT after timer if RNA or immediately if Busy SLT answers and hears either ***4001200 (Busy) or ***5001200 (RNA)
Hold, enquiry call to ext 200, but ext 200 does not want to take held call and ext 200 does not hang up	1.Incoming call on TRK1 answered by SLT 2. SLT presses Recall 3. SLT dials 1200 4. Ext 200 Answers 5. SLT presses Recall 6. SLT presses * 7	1. ***6001 sent to SLT 2. MOH to TRK 1 starts SLT hears fast dial tone 3. Ext 200 rings SLT hears ring tone 4. SLT connected to Ext 200 5. SLT connected to TRK1 Ext 200 goes on hold 6. TRK1 hears * 7
Hold, enquiry call to ext 200, ext 200 wants to take held call	1.Incoming call on TRK1 answered by SLT 2. SLT presses Recall 3. SLT dials 1200 4. Ext 200 Answers 5. SLT hangs up	1. ***6001 sent to SLT 2. MOH to TRK 1 starts SLT hears fast dial tone 3. Ext 200 rings SLT hears ring tone 4. SLT connected to Ext 200 5. TRK1 connected to Ext 200
Hold, enquiry call to ext 200, ext 200 does not want to take the held call and hangs up	1.Incoming call on TRK1 answered by SLT 2. SLT presses Recall 3. SLT dials 1200 4. Ext 200 Answers 5. Ext 200 hangs up 6. SLT presses Recall 7. SLT presses * 7	1. ***6001 sent to SLT 2. MOH to TRK 1 starts SLT hears fast dial tone 3. Ext 200 rings SLT hears ring tone 4. SLT connected to Ext 200 5. SLT hears 9999 6. MOH to TRK1 stops SLT hears normal dial tone 7. SLT connected to TRK1

PC Programming (Remote Maintenance)

Description

"PC Programming" software package shall be offered from Nitsuko. By this software, your PC can access to the dX-Z96 system locally or remotely for system programming purpose. For "local" PC Programming application, your PC shall be connected to DCI-A unit installed in the keyphone. For "remote" PC Programming application, ISDN line is preferred to use for direct connection.
For either case, LAPBU-S1 should be installed in the system.

For the details, refer to "dX-Z 96/328 Remote Maintenance Terminal Handling Manual"

Preamble Message (VAU)

Description

Preamble Message assists operator to answer the Trunk line incoming. When operator answers the Trunk line, VAU automatically answers the incoming Trunk line with Preamble Message, and then VAU transfers the answered Trunk line to operator.

For example,

- Incoming Trunk line comes.
- Operator answers the Trunk line. (by pressing the C/O key.)
- Trunk line caller hears the Preamble Message from VAU.
  "This is NITSUKO Japan. May I help you?"
- Operator starts to talk to Trunk line caller.

Conditions

This feature is available for key telephone and single line telephone.

Options

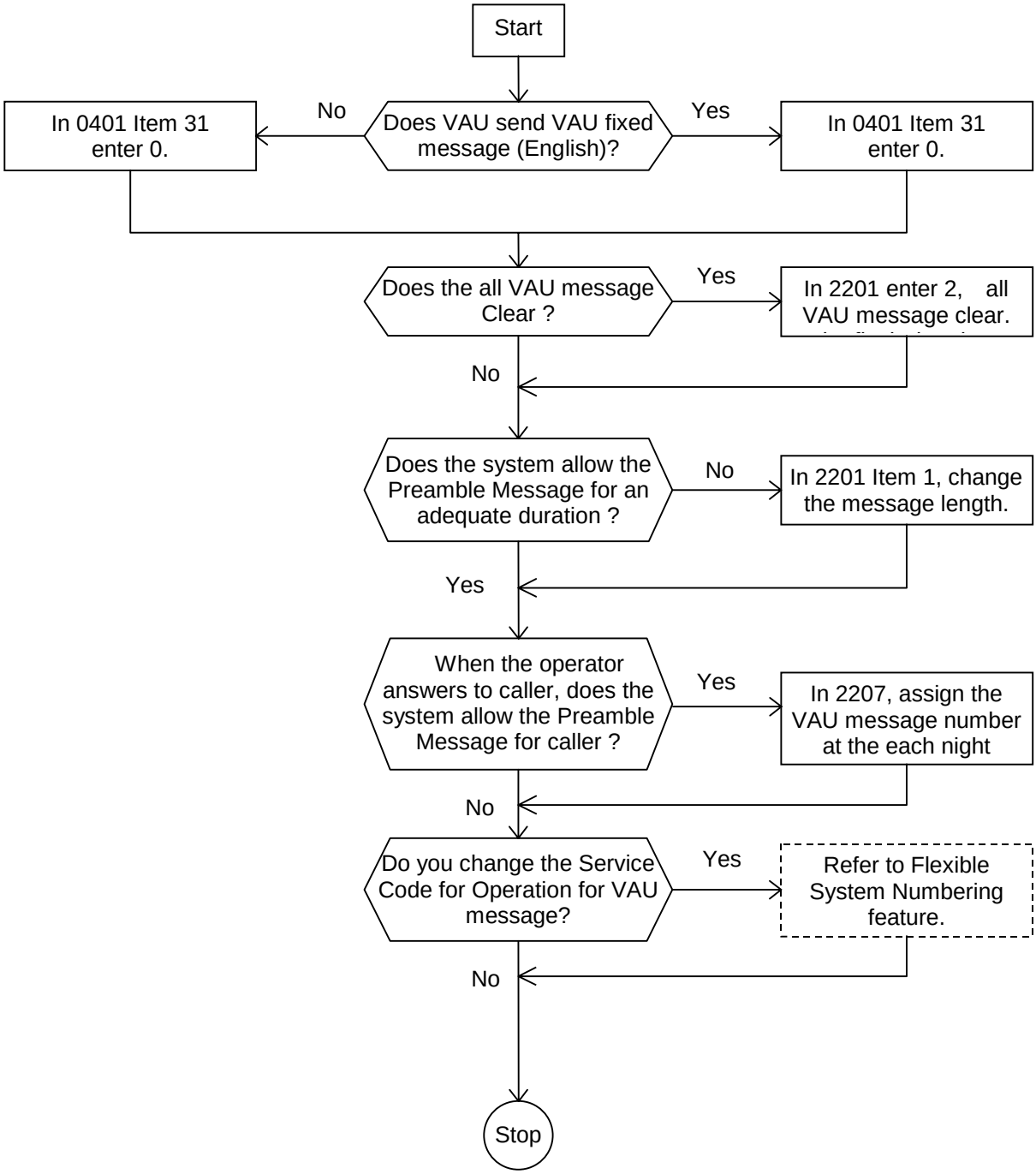
DX2E-VAU-A

Related Features

None

Preamble Message (VAU)

Programming


Start
Does VAU send VAU fixed message (English)?
No
In 0401 Item 31 enter 0.
Yes
In 0401 Item 31 enter 0.
Does the all VAU message Clear ?
Yes
In 2201 enter 2, all VAU message clear.
No
Does the system allow the Preamble Message for an adequate duration ?
No
In 2201 Item 1, change the message length.
Yes
When the operator answers to caller, does the system allow the Preamble Message for caller ?
Yes
In 2207, assign the VAU message number at the each night
No
Do you change the Service Code for Operation for VAU message?
Yes
Refer to Flexible System Numbering feature.
No
Stop

Preamble Message (VAU) (Cont'd)

Programming (Cont'd)

> 0401 – System Options, Part A, Item 31: VAU fixed message
Set the use (0) or not use (1) VAU fixed message for VAU features.
When you set to not use (1), you can not use Preamble Message feature. .

> 0514 – Service Code Setup, Part B, Item 6: Operation for VAU message (VAU)
Assign a service code for operation for VAU message.

> 2201 – VAU Reset
Erase the Preamble Message and VAU message.

> 2202 – Message Length Assignment for VAU
Assign the maximum message length for VAU message and Personal message.

> 2207 – Preamble Message
Each extension line, assign the VAU Message number is used by Preamble Message.

Related Features

None

Operation

To Answer with Preamble Message to Trunk Line

<Key Telephone> <Single Line Telephone>

To answer with Preamble Message to Trunk Line

1. Incoming Trunk line comes.
2. Answer the incoming Trunk line.
3. Trunk line caller hears the Preamble Message from VAU.
(after Preamble Message is over)
4. Starts to talk to Trunk line caller.

Preamble Message (VAU) (Cont'd)

Preamble Message Control

<Key Telephone>

To operate the VAU message (Preamble Message):

Note: Message Number (refer to 4-a, 4-b and 4-c) should be assigned under CMD 2207.

1. Press idle CL key.
2. Dial 716( ).

3-a. Dial 3 (erase).
4-a. Dial message number (01-16).
5-a. Press SPK to hang up (finish).
OR
Dial 5 (listen: go to 4-b).
OR
Dial 7 (re-record: go to 4-c).

3-b. Dial 5 (listen).
4-b. Dial message number (01-16).
5-b. Listen the recorded VAU message.
6-b. Press SPK to hang up.
OR
Dial 3 (erase: go to 4-a).
OR
Dial 7 (re-record: go to 4-c).

3-c. Dial 7.
4-c. Dial message number (01-16).
5-c. Hear "Please start recording <beep>".
6-c. Recording VAU message.
7-c. Press SPK to hang up.
OR
Dial 3 (erase: go to 4-a).
OR
Dial 5 (listen: go to 4-b).

Preamble Message (VAU) (Cont'd)

Operation (Cont'd)

<Single Line Telephone>

To operate the VAU message (Preamble Message):

Note: Message Number (refer to 4-a, 4-b and 4-c) should be assigned under CMD 2207.

1. Off hook.
2. Dial 716( ).

3-a. Dial 3 (erase).
4-a. Dial message number (01-16).
5-a. On hook (finish).
OR
Dial 5 (listen: go to 4-b).
OR
Dial 7 (re-record: go to 4-c).

3-b. Dial 5 (listen).
4-b. Dial message number (01-16).
5-b. Listen the recorded VAU message.
6-b. On hook.
OR
Dial 3 (erase: go to 4-a).
OR
Dial 7 (re-record: go to 4-c).

3-c. Dial 7.
4-c. Dial message number (01-16).
5-c. Hear "Please start recording <beep>".
6-c. Recording VAU message.
7-c. On hook.
OR
Dial 3 (erase: go to 4-a).
OR
Dial 5 (listen: go to 4-b).

Preview Dial

Description

Preview Dial lets a display keyset user dial and review a number before the system dials it out. Dialing Number Preview helps the user avoid dialing errors.

Conditions

This feature only available for key telephone with display.

An extension user cannot edit the displayed number.

Default Setting

An extension's Class of Service allows Preview Dial.

Options

None

Programming

> 0406 – COS Options, Item 50: Preset dial
  In an extension's Class of Service, enable (1) or disable (0) an extension's ability to use Preview Dial.

> 1005 – Class of Service
  Assign a Class of Service (1-10) to an extension.

Related Features

None

Operation

To use Preview Dial to place a call:

1. Do not lift the handset and do not press a CL key.
2. Dial number you want to call.

   The number displays.
3. To dial out the displayed Trunk Line number, press a line key.

   If the previewed number as a Trunk Line access code (e.g.,9), you can press CL instead.

   OR

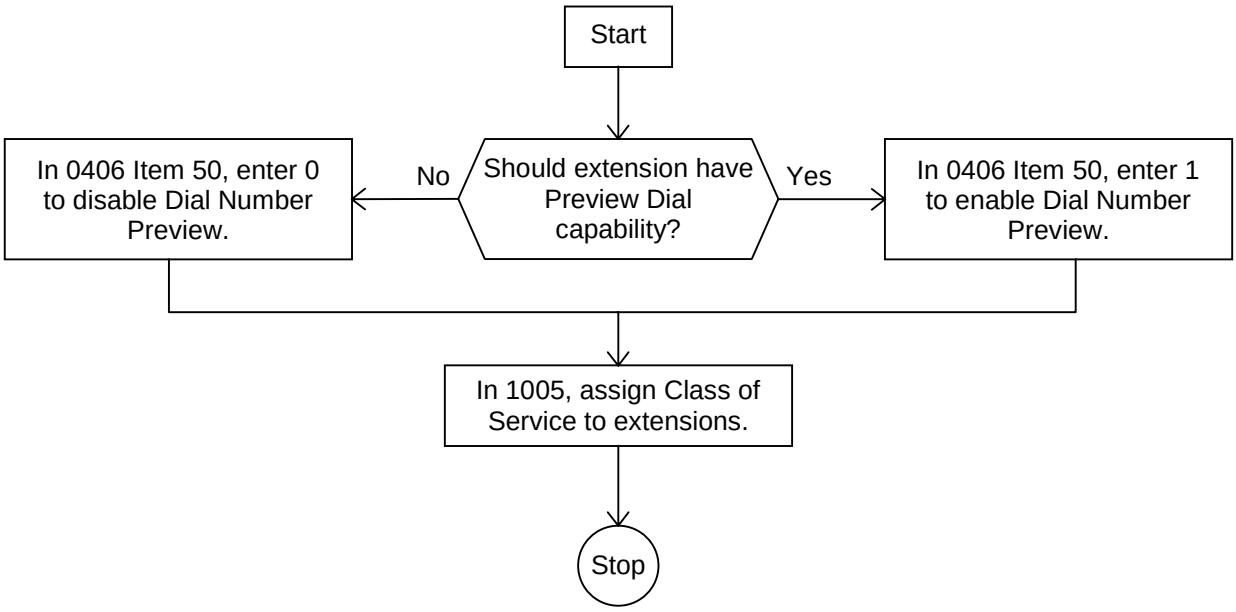
   To dial out the displayed Intercom number, press a CL key.

   OR

   To cancel the number without dialing it out, Press HOLD.

Preview Dial (Cont'd)

Programming (Cont'd)


Start
Should extension have Preview Dial capability?
No
Yes
In 0406 Item 50, enter 0 to disable Dial Number Preview.
In 0406 Item 50, enter 1 to enable Dial Number Preview.
In 1005, assign Class of Service to extensions.
Stop

Prime Line Selection

Description

Prime Line Selection allows an extension user to place or answer a call over a specific Trunk Line by just lifting the handset. The user does not have to first press keys or dial codes. This simplifies handing calls on a frequently used Trunk Line.

Prime Line Selection has the following two modes of operation:

- **Outgoing Prime Line Preference**

  Lifting the handset seizes the Prime Line. Outgoing Prime Line Preference would help a telemarketer who always needs a free line to call prospective clients. The telemarketer just lifts the handset and the Prime Lines is always available. (Outgoing Prime Line Preference may be affected by Incoming Prime Line Preference -- see Programming below.)

- **Incoming Prime Line Preference**

  When the Prime Line rings the extension, lifting the handset answers the call. Incoming Prime Line Preference could benefit the Service Department dispatcher who must quickly answer customer's service calls and then dispatch repay technicians. The dispatcher would have the assurance than whenever a customer calls in, the dispatcher just lifts the handset get their call. (Incoming Prime Line Preference can optionally seize an idle line appearance -- see Programming below.)

Conditions

This feature available for key telephone (without DX2E-0T TEL).

Default Setting

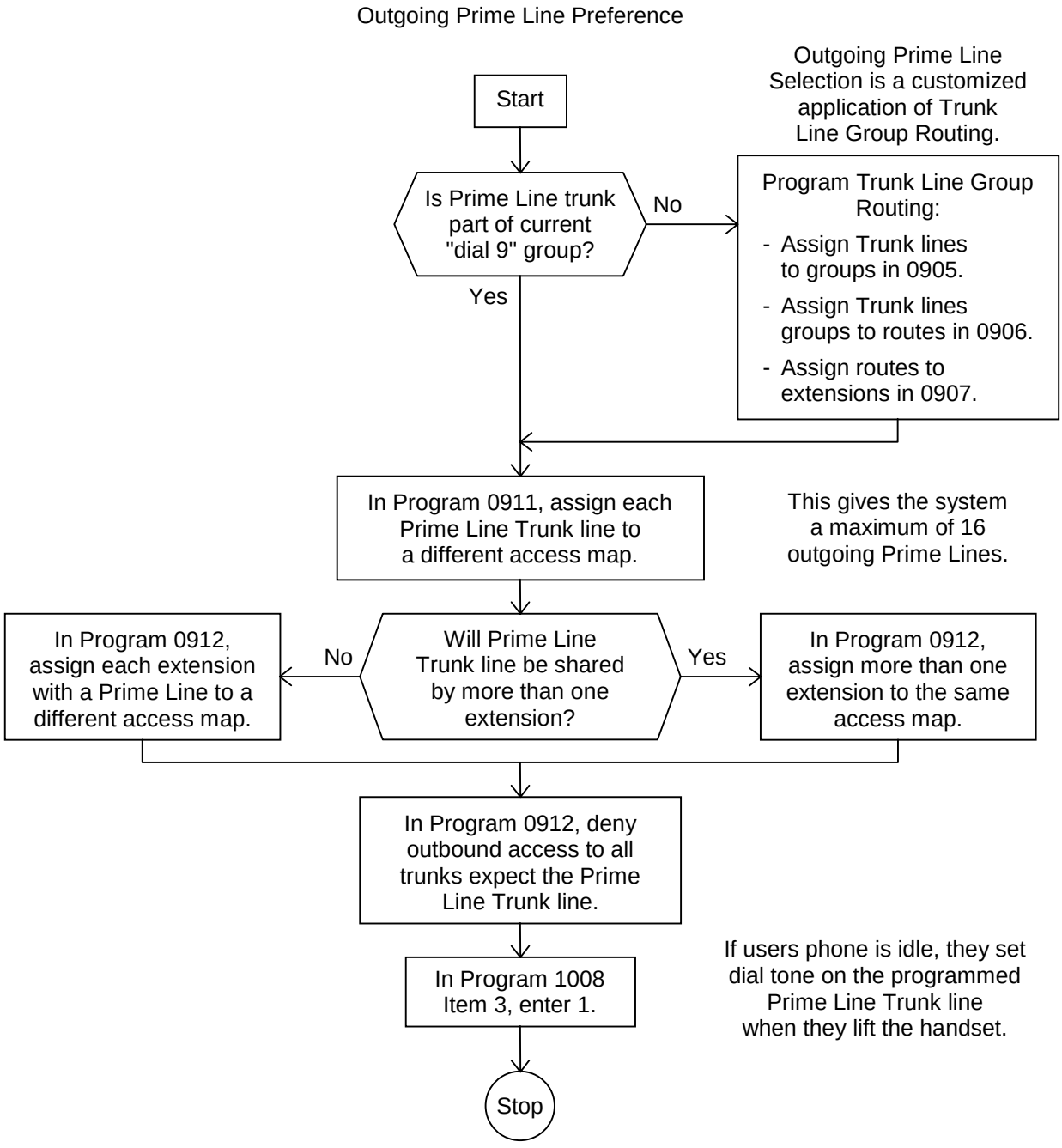
- Trunk Line calls have incoming priority over Intercom calls.
- Ringing Line Preference set for ringing Trunk Line calls.
- All Trunk Lines in group 1 – route 1.
- Trunk Lines only ring extension 200 (port 001).
- Extensions Intercom dial tone when they lift the handset.
- Users get Intercom dial tone when they lift the handset.
- No Prime Lines programmed.

Options

None

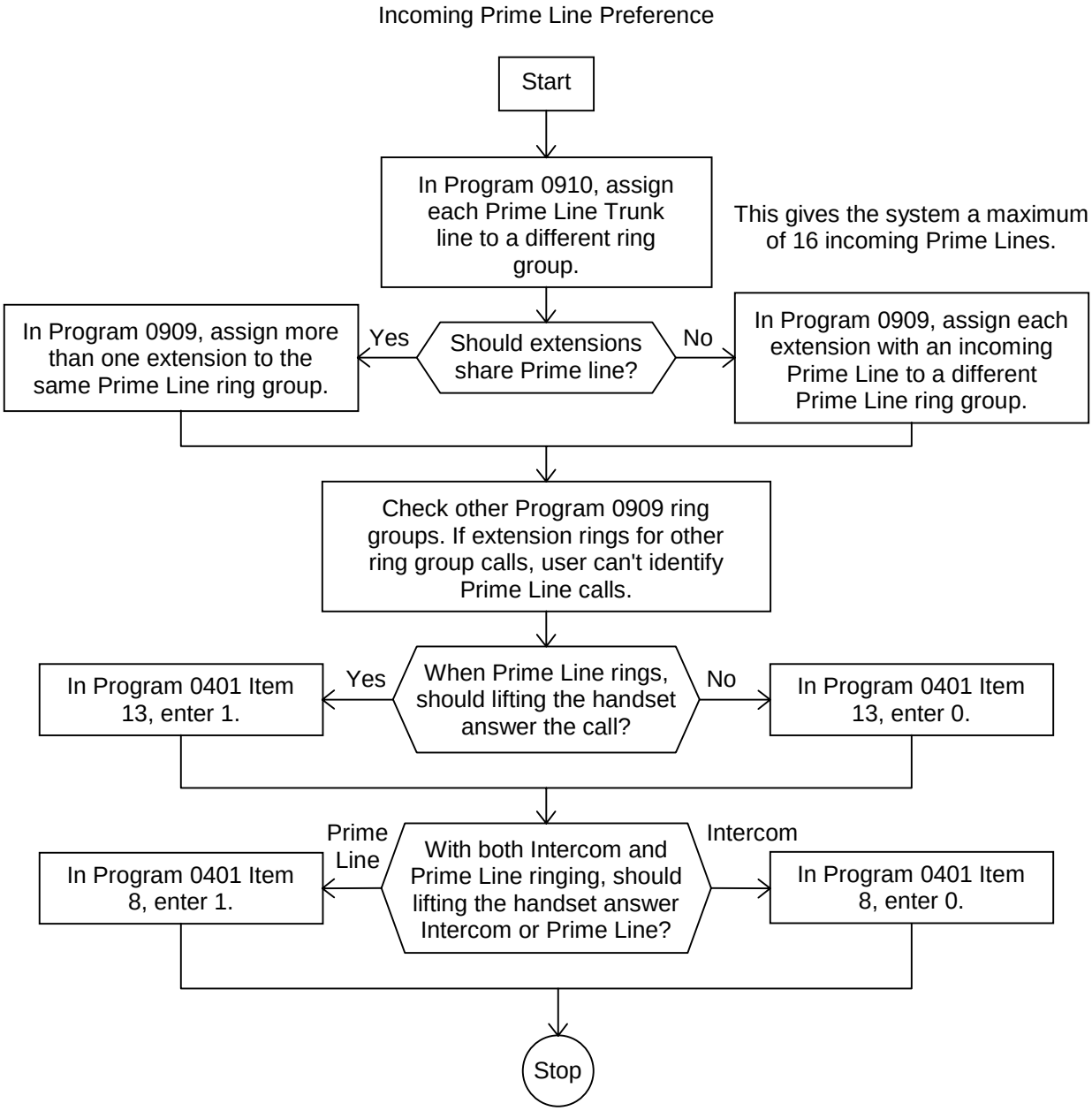
Prime Line Selection (Cont'd)

Programming


Outgoing Prime Line Preference
Outgoing Prime Line Selection is a customized application of Trunk Line Group Routing.
Start
Is Prime Line trunk part of current "dial 9" group?
No
Yes
Program Trunk Line Group Routing:
- Assign Trunk lines to groups in 0905.
- Assign Trunk lines groups to routes in 0906.
- Assign routes to extensions in 0907.
In Program 0911, assign each Prime Line Trunk line to a different access map.
This gives the system a maximum of 16 outgoing Prime Lines.
In Program 0912, assign each extension with a Prime Line to a different access map.
No
Will Prime Line Trunk line be shared by more than one extension?
Yes
In Program 0912, assign more than one extension to the same access map.
In Program 0912, deny outbound access to all trunks expect the Prime Line Trunk line.
In Program 1008 Item 3, enter 1.
If users phone is idle, they set dial tone on the programmed Prime Line Trunk line when they lift the handset.
Stop

Prime Line Selection (Cont'd)

Programming (Cont'd)


Incoming Prime Line Preference
Start
In Program 0910, assign each Prime Line Trunk line to a different ring group.
This gives the system a maximum of 16 incoming Prime Lines.
In Program 0909, assign more than one extension to the same Prime Line ring group.
Yes
Should extensions share Prime line?
No
In Program 0909, assign each extension with an incoming Prime Line to a different Prime Line ring group.
Check other Program 0909 ring groups. If extension rings for other ring group calls, user can't identify Prime Line calls.
In Program 0401 Item 13, enter 1.
Yes
When Prime Line rings, should lifting the handset answer the call?
No
In Program 0401 Item 13, enter 0.
Prime Line
With both Intercom and Prime Line ringing, should lifting the handset answer Intercom or Prime Line?
Intercom
In Program 0401 Item 8, enter 1.
In Program 0401 Item 8, enter 0.
Stop

Prime Line Selection (Cont'd)

Programming (Cont'd)

> 0401 – System Options, Part A, Item 8: Priority for Incoming Call
Set incoming Prime Line preference. Enter 1 to answer ringing Prime Line; enter 0 to answer ringing Intercom call.

> 0401 – System Options, Part A,
Item 13: Auto Answer to Incoming Call from Trunk Line
Enter 1 if lifting the handset should answer ringing Prime Line; enter 0 to seize idle line appearance.

> 0905 – Trunk Line Groups
Assign Prime Line to Trunk Line group for outgoing Prime Line selection. (Also see 0906 and 0907 below.)

> 0906 – Trunk Line Group Routing (Dial 9)
Set up outbound route for Trunk Line group that contains the Prime Line. (Also see 0905 and 0907.)

> 0907 – Trunk Line Group Routing for Extension
Assign extension(s) to a Prime Line route (1-36) for outgoing Prime Line access.

> 0909 – Trunk Line Group Assignment
Assign extension(s) to a ring group (1-16) that consists of a Prime Line.

> 0910 – Trunk Line Ring Group Assignment
Assign a Prime Line to a ring group (1-16).

> 0911 – Trunk Line Access Map Setup
For outgoing Prime Line selection, assign each Prime Line Trunk Line to a different access map (1-16).

> 0912 – Extension Access Map Assignment
Set assignment so extension(s) can have access to Prime Line. Deny outbound access to extensions that should not have Prime Line.

> 1008 – Basic Extension Port Setup (Part B), Item 3: Auto Trunk Line Seize
Enter 1 for this option so extension user seizes Prime Line when they lift the handset.

Prime Line Selection (Cont'd)

Related Features

Direct Inward Lines/Direct Inward System Access

DILs and DISA calls also ring extensions directly, even if not allowed in ring group programming.

Line Preference

Prime Line Selection directly interacts with Line Preference.

Operation

To place a call on your Prime Line:

1. Lift handset.

   You hear dial tone on your Prime Line.

To answer a call on your Prime Line:

1. Lift handset.

   Depending on your Line Preference programming, you'll either answer the Prime Line or get dial tone on the idle line appearance.

Privacy Release (Meet Me Conference)

Description

Privacy Release lets extension user's in the same work area join in a Trunk Line Conference. To initiate a Privacy Release, an extension user just presses the Meet Me Conference key and tells their co-workers to join the call. The system releases the privacy on the Trunk Line, and other users can just press the Trunk Line's line key to join the call.

Privacy Release does not use the telephone system features to announce the call. The person initiating the Privacy Release just announces it "through the air".

Conditions

This feature available for key telephone.

Default Setting

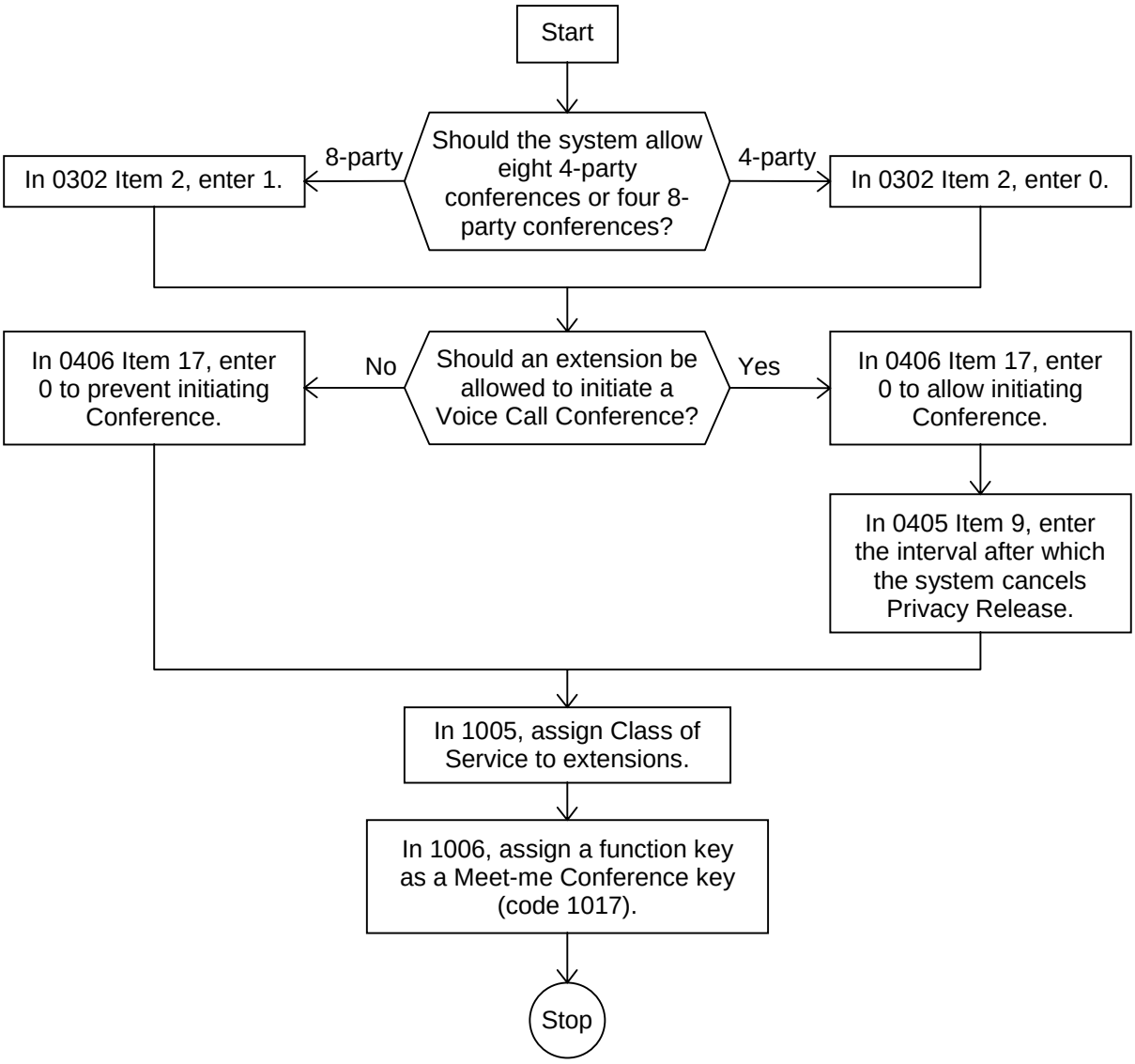
- The system allows 8 four-party Conferences.
- An extension's Class of Service allows initiating a Voice Call Conference.
- Meet Me Conference key not assigned.
- Privacy Release join permission time is 90 sec.

Options

None

Privacy Release (Meet Me Conference) (Cont'd)

Programming


Start
Should the system allow eight 4-party conferences or four 8-party conferences?
8-party
4-party
In 0302 Item 2, enter 1.
In 0302 Item 2, enter 0.
Should an extension be allowed to initiate a Voice Call Conference?
No
Yes
In 0406 Item 17, enter 0 to prevent initiating Conference.
In 0406 Item 17, enter 0 to allow initiating Conference.
In 0405 Item 9, enter the interval after which the system cancels Privacy Release.
In 1005, assign Class of Service to extensions.
In 1006, assign a function key as a Meet-me Conference key (code 1017).
Stop

Privacy Release (Meet Me Conference) (Cont'd)

Programming (Cont'd)

> 0302 – Music on Hold and Conference Setup, Item 2: Conference mode
Set the Conference mode. The system allows either 8 four-party conferences or 4 eight-party conferences per option card.

> 0405 – System Timers, Item 9: Privacy Release timer
Set the join permission time of the Privacy Release.

> 0406 – COS Options, Item 17: Privacy Release
In an extension's Class of Service, enables (1) or disable (0) an extension's ability to initiate a Privacy Release.

> 1005 – Class of Service for Extension
Assign a Class of Service (1-10) to extension.

> 1006 – Programming Function keys
Assign a function key for Privacy Release (code 1017).

Related Features

Conference

Set up multiple-party telephone meeting without leaving the office.

Operation

To set up a Privacy Release with a co-worker in your immediate work area:

1. Place or answer Trunk Line call.
2. Press Meet Me Conference key (PGM 1006 or SC 851: 1017).
3. Announce Conference.

   Just tell your co-worker about the call. Do not use telephone system features to announce it.

To join a Meet Me Conference (if invited).

1. After Conference request, press indicated line key.

To exit a Voice Call Conference without affecting the other parties:

1. Press HOLD.

Private Line

Description

A Private Line is a Trunk Line reserved for an extension for placing and answering calls.

A user with a Private Line always knows when important calls are for them. Additionally, the user has their own Trunk Line for placing calls that is not available to others in the system.

- **Incoming only**

The extension has a Private Line only for incoming calls. The user cannot place calls on the Private Line.

- **Outgoing only**

The keyset has a Private Line only for outgoing calls. The Private Line does not ring for incoming calls.

- **Both ways**

The extension has a Private Line for both incoming and outgoing calls.

Conditions

This feature available for key telephone and single line telephone.

Default Setting

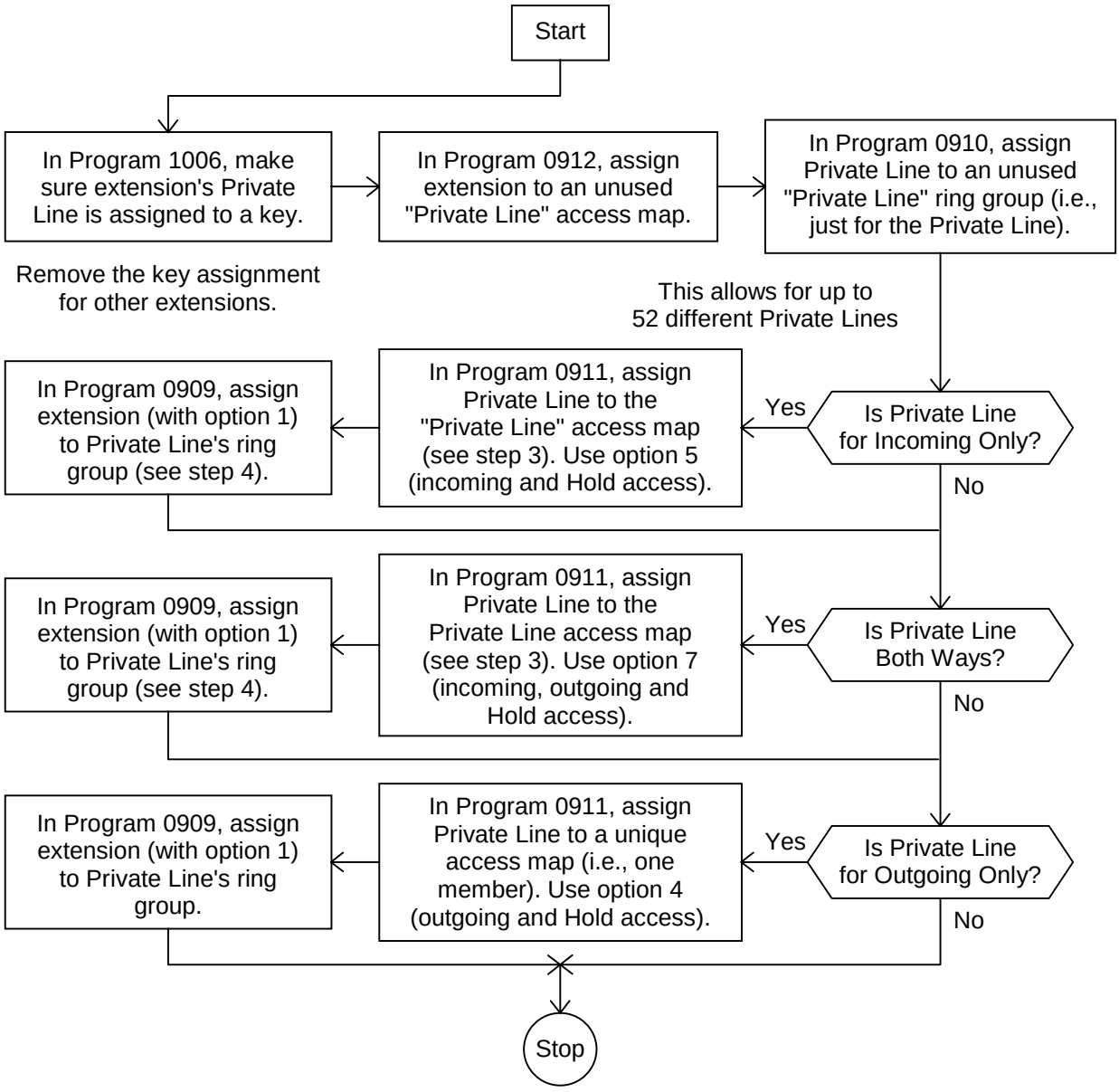
- No Private Lines programmed.
- All extensions assigned to ring group 1.
- Extension port 001 has option 1; all other extensions have option 0.
- All Trunk Lines assigned to ring group 1.
- All Trunk Lines in access map 1 have option 7 (full access).
- All Trunk Lines in the other access maps have option 0 (no access).
- All extensions use Access Map 1.

Options

None

Private Line (Cont'd)

Programming


Start
In Program 1006, make sure extension's Private Line is assigned to a key.
In Program 0912, assign extension to an unused "Private Line" access map.
In Program 0910, assign Private Line to an unused "Private Line" ring group (i.e., just for the Private Line).
Remove the key assignment for other extensions.
This allows for up to 52 different Private Lines
Is Private Line for Incoming Only?
Yes
No
In Program 0911, assign Private Line to the "Private Line" access map (see step 3). Use option 5 (incoming and Hold access).
In Program 0909, assign extension (with option 1) to Private Line's ring group (see step 4).
Is Private Line Both Ways?
Yes
No
In Program 0911, assign Private Line to the Private Line access map (see step 3). Use option 7 (incoming, outgoing and Hold access).
In Program 0909, assign extension (with option 1) to Private Line's ring group (see step 4).
Is Private Line for Outgoing Only?
Yes
No
In Program 0911, assign Private Line to a unique access map (i.e., one member). Use option 4 (outgoing and Hold access).
In Program 0909, assign extension (with option 1) to Private Line's ring group.
Stop
Is all other access maps, give access 3 (Hold) to Private line. Do not assign any extensions to Private Line ring group.

Private Line (Cont'd)

Programming (Cont'd)

Refer to the Programming Flowchart on the following page.

> 0909 – Trunk Line Group for Assignment
Assign extension to Private Line's ring group. Use option 1 for Incoming or Both Ways Private Lines. Use option 0 for Outgoing Private Lines. Do not assign any other extensions to the Private Line ring group.

> 0910 – Trunk Line Ring Group Assignment
Assign Private Line to an unused "Private Line" ring group (1-16) (i.e., a ring group just for the Private Line).

> 0911 – Trunk Line Access Map Setup
Assign Private Line to the Private Line access map (1-16) (see Program 0912 below). Use option 5 for Incoming, option 7 for Both Ways and option 4 for Outgoing. In all other access maps, give option 3 to the Private Line.

> 0912 – Extension Access Map Assignment
Assign extension that should have Private Line to an unused "Private Line" access map.

> 1006 – Programming Function Keys
Make sure extension has a line key for the Private Line.

Private Line (Cont'd)

Related Features

Call Forwarding

Private Lines do not follow Call Forwarding.

Line Preference

An extension user can have Line Preference options applied to their Private Line.

Prime Line Selection

A Private Line can also be a Prime Line.

Toll Restriction

Private Lines follow normal Toll Restriction.

Transfer

An extension user can Transfer their Private Line. Since other users have hold access (see Programming), the destination can answer the transferred Private Line and place it or Hold.

Operation

<Key Telephone>

To place a call on your Private Line:

1. Press Private Line key.
2. Dial number.

OR

1. Press idle CL key and dial 805( ).
2. Dial private line number (e.g., 005 for line 5).

To answer a call on your Private line:

1. Press Private Line key.

<Single Line Telephone>

To place a call on your Private Line:

1. Off hook.
2. Dial 805( ).
3. Dial private line number (e.g., 005 for line 5).

To answer a call on your Private line:

1. Off hook.

Programmable Function Key

Description

Each keyset has Programmable Function Keys. Programmable Function Key simplify placing calls, answering calls and using certain features. You can customize the function of a keyset's programmable keys from your administration telephone, or the extension user can do it themselves.

Depending on your telephone, you either have 16, 24 or 32 Programmable Function Keys. (0-Line keysets don't have function keys.)

Refer to Table 1-4 for Programmable Function Key functions.

Conditions

This feature available for key telephone (without DX2E-0T TEL).

Default Setting

- All Programmable Function Key are line keys.
- Service Code for programmable function key programming is dial 851.

Options

None

Programming

> 0406 – Class of Service Options,
>
> Item 69: Programmable function key programming
>
> In an extension's Class of Service, enable (1) or disable (0) an extension's ability to program their own function keys.

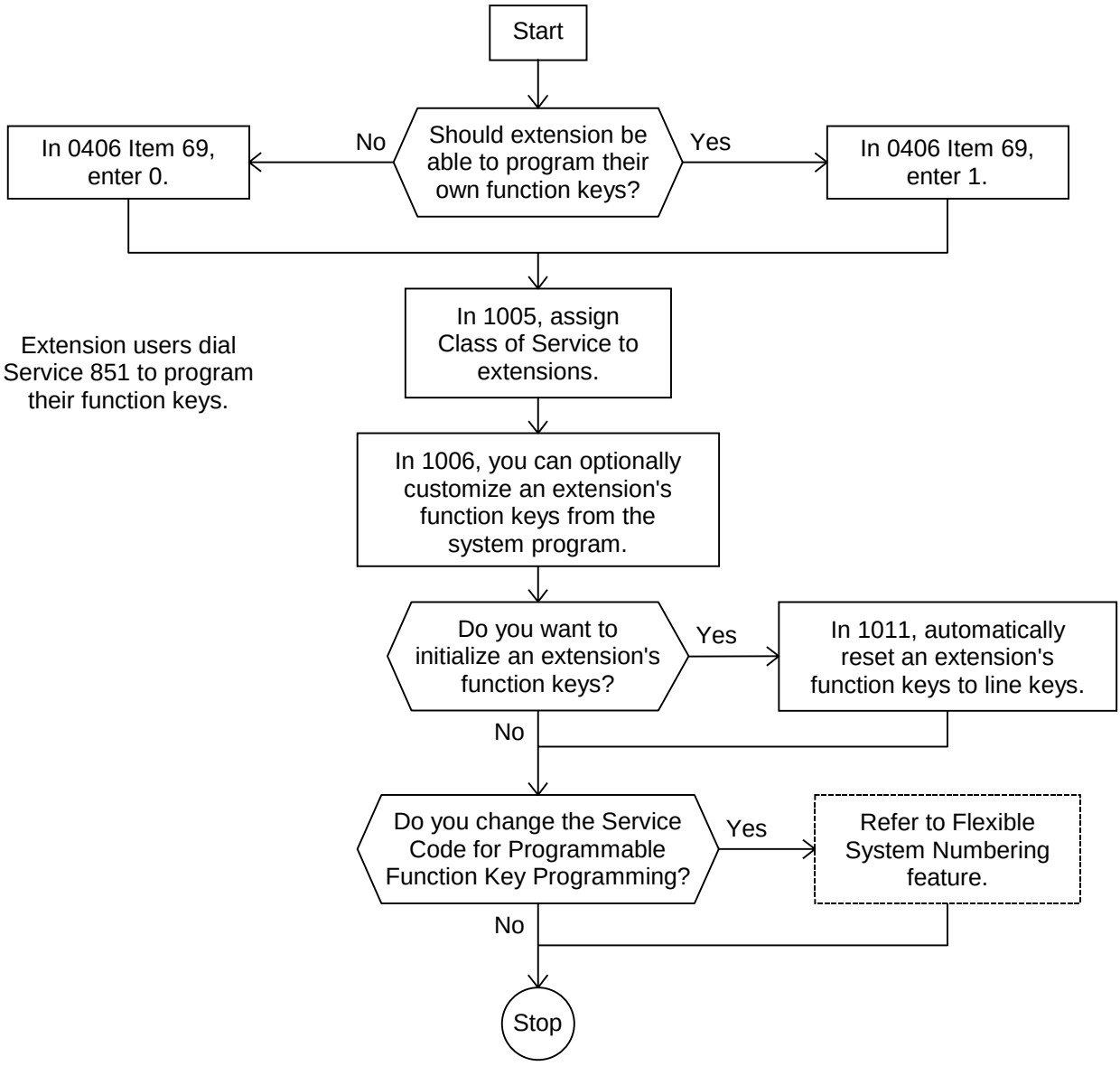
> 0511 – Service Code Setup, Part A
>
> Item 36: Programmable function key programming
>
> Assign a service code for programmable function key programming.

> 1006 – Programming Function Keys
>
> Assign the functions of a keyset's Programmable Function Key.

> 1011 – Function Key Initialization
>
> Initialize an extension's Programmable Function Key. This makes all keys (key 1 = line, key 2 = etc.). You may want to do this if you have to reassign an extension's keys.

Programmable Function Key (Cont'd)

Programming (Cont'd)


Start
Should extension be able to program their own function keys?
No
In 0406 Item 69, enter 0.
Yes
In 0406 Item 69, enter 1.
In 1005, assign Class of Service to extensions.
Extension users dial Service 851 to program their function keys.
In 1006, you can optionally customize an extension's function keys from the system program.
Do you want to initialize an extension's function keys?
Yes
In 1011, automatically reset an extension's function keys to line keys.
No
Do you change the Service Code for Programmable Function Key Programming?
Yes
Refer to Flexible System Numbering feature.
No
Stop

Programmable Function Key (Cont'd)

Related Features

Abbreviated Dialing/One-Touch Dialing

Abbreviated Dialing and One-Touch Dialing also offer quick access to calls and features.

Operation

To change the function of a programmable key:

1. Press idle CL key.
2. Dial 851( ).
3. Press the key you want to program.
4. Enter the 4-digit key function.

   Available functions are 1000-1074 (refer to chart) and line keys 0001-0052.

To check the function of a programmable key:

1. Press CHECK.
2. Press the programmable key.

   The programmed function displays.

Pulse to Tone Conversion

Description

An extension can use Pulse to Tone Conversion on Trunk Line calls.

Pulse to Tone Conversion lets a user change their extension's dialing mode while placing a call. For systems in a Dial Pulse area, this permits users to access automatic banking from their DP area. The user can, for example:

- Place a call to a DP Trunk Line.
- Depending on programming:
- Manually implement Pulse to Tone Conversion
  OR
- Wait 10 seconds (PGM 0405 Item 30).
- Dial the access code for automatic banking. The system dials the digits after the conversion as DTMF.

Conditions

This feature available for key telephone.

Pulse to Tone Conversion is only valid for Dial Pulse Trunk Lines (Program 0901 Item 1, options 0 or 1).

Default Setting

- All Trunk Line allow manual DP to DTMF Conversion.
- An extension's Class of Service allows Pulse to Tone Conversion.
- The Pulse to Tone Conversion time (inter digit time) is 10 second.

Options

None

Programming

> 0104 – DP to DTMF Conversion Options
  For each Trunk Line, set the type of DP to DTMF Conversion required: automatic (0), automatic and manual (1), or manual (2).

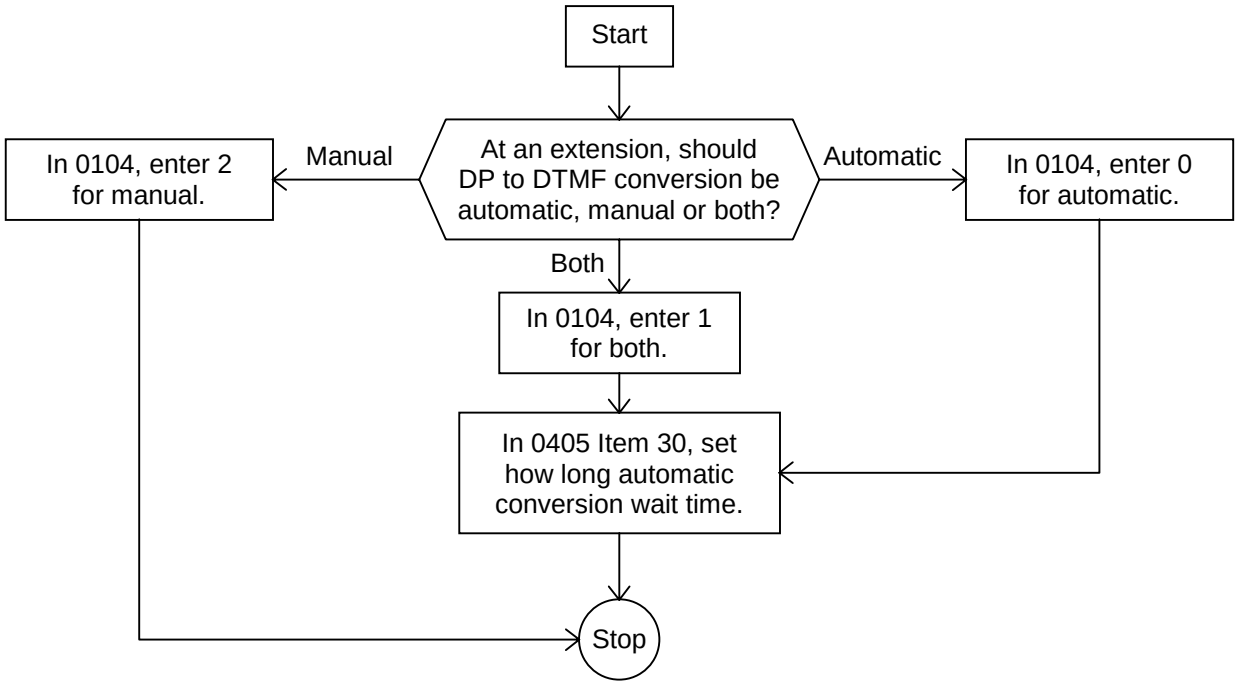
> 0405 – System Timers, Item 30: Trunk line, inter digits timer
  Set the inter digits timer (0-64800 seconds).

Related Features

None

Pulse to Tone Conversion (Cont'd)

Programming (Cont'd)


Start
At an extension, should DP to DTMF conversion be automatic, manual or both?
Manual
Automatic
Both
In 0104, enter 2 for manual.
In 0104, enter 0 for automatic.
In 0104, enter 1 for both.
In 0405 Item 30, set how long automatic conversion wait time.
Stop

Operation

To convent your phone's dialing to tone after placing your call on a pulse line:

1. Place call over pulse line.
2. Dial # to switch the DP Trunk Line to DTMF dialing.

Room Monitor

Description

This feature enables you to monitor the room status through your phone. Between keyphone and keyphone, the monitored room status shall be picked up by the integrated microphone, and the status shall be heard from integrated speaker of the monitoring keyphone. Between SLT and SLT, go off hook the handset of monitored phone and call it from the other phone by dialing the Service code, then the status of certain area where monitored phone is placed can be heard at the monitoring phone. This service is available until the handset of monitored telephone is set to on-hook.

Conditions

This feature available for key telephone and Single Line Telephone.

However, the feature is not available in the combination of key telephone and SLT.

Room Monitor is for listening only. It does not allow for conversation between the monitoring and monitored extensions.

Between keyphone and keyphone, a user can only monitor one station at a time. However many stations can monitor the same extension at the same time.

Between SLT and SLT, a SLT can monitor more than two SLTs call by call. But one SLT cannot be monitored by more than two SLTs.

Default Setting

- An extension's Class of Service does not permit initiating Room Monitor.
- An extension's Class of Service does not permit it to be monitored.
- No Room Monitor keys assigned.
- An extension’s Class of Service does not permit SLT Room Monitor.
- Service code for “SLT Room Monitor” is 770.

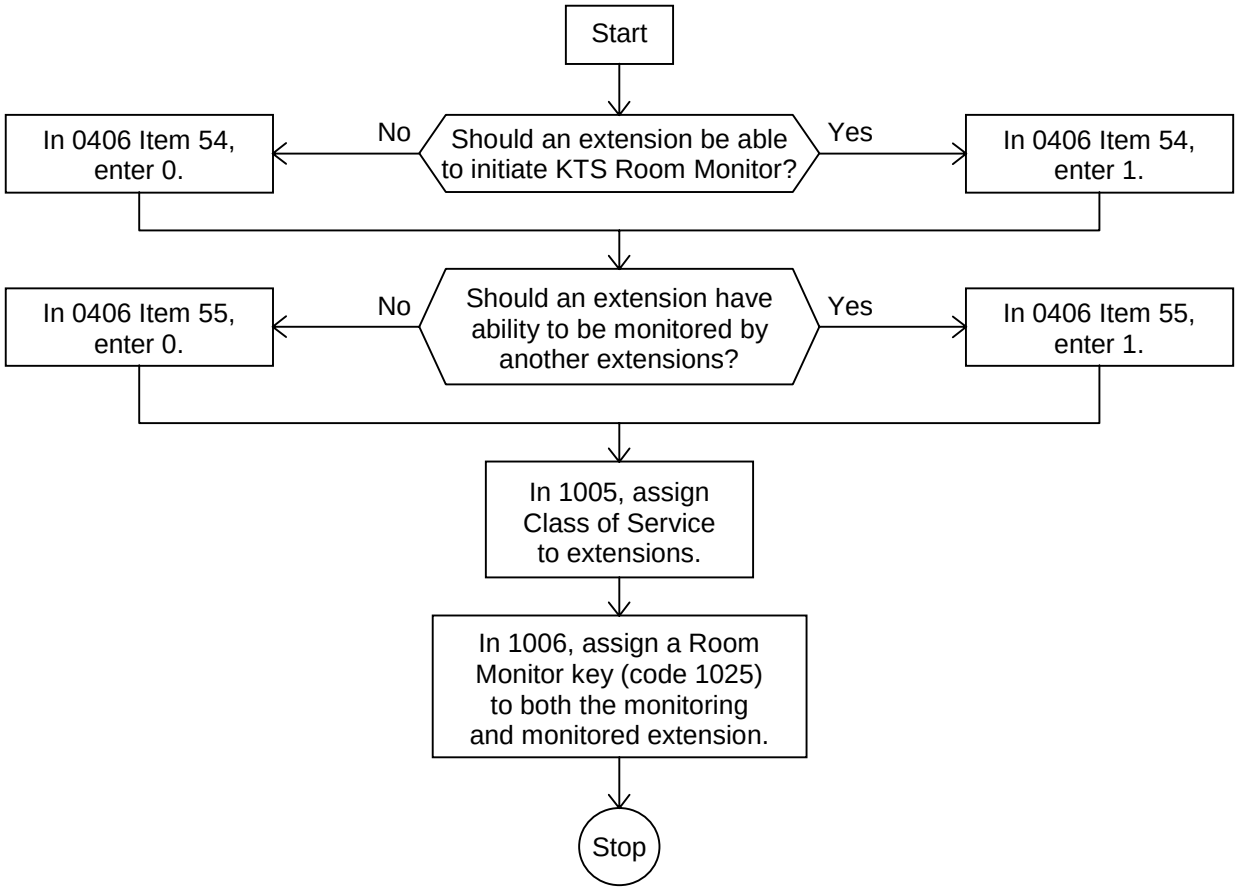
Options

None

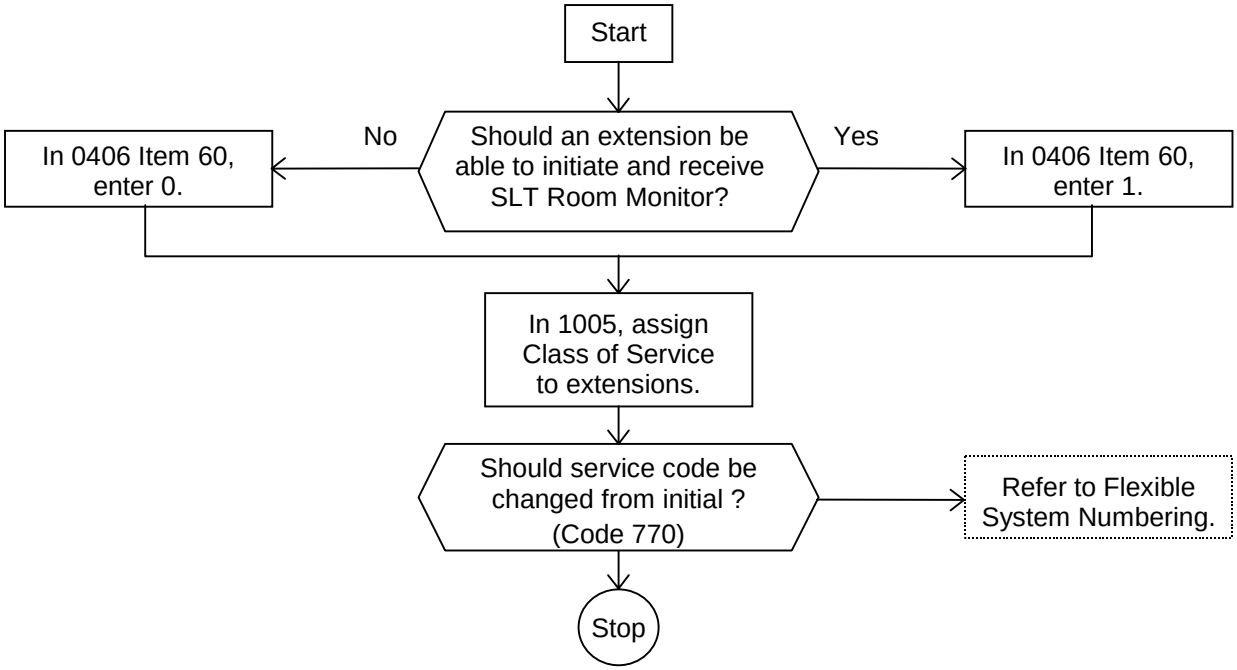
Room Monitor (Cont'd)

Programming

<Room monitor for Key Telephone>


Start
Should an extension be able to initiate KTS Room Monitor?
No
In 0406 Item 54, enter 0.
Yes
In 0406 Item 54, enter 1.
Should an extension have ability to be monitored by another extensions?
No
In 0406 Item 55, enter 0.
Yes
In 0406 Item 55, enter 1.
In 1005, assign Class of Service to extensions.
In 1006, assign a Room Monitor key (code 1025) to both the monitoring and monitored extension.
Stop

<Room monitor for Single Line Telephone>


Start
Should an extension be able to initiate and receive SLT Room Monitor?
No
In 0406 Item 60, enter 0.
Yes
In 0406 Item 60, enter 1.
In 1005, assign Class of Service to extensions.
Should service code be changed from initial ? (Code 770)
Refer to Flexible System Numbering.
Stop

Room Monitor (Cont'd)

Programming (Cont'd)

> 0406 – COS Options, Item 54: Room Monitoring
In an extension's Class of Service, enable (1) or disable (0) an extension's ability to initiate Room Monitor.

> 0406 – COS Options, Item 55: Room Monitored
In an extension's Class of Service, enable (1) or disable (0) an extension's ability to be monitored.

> 0406 – COS Options, Item 60 : SLT Room Monitor
In extension's Class of Service, enable (1) or disable (0) for "SLT Room Monitor".

> 0514 – Service Code Setup, Part B Item 56 : SLT Room Monitor
Assign the Service Code for "SLT Room Monitor".

> 1005 – Class of Service for Extension
Assign a Class of Service (1-10) to an extension.

> 1006 – Programming Function Keys
Assign a function keys as a Room monitor key (code 1025) for both the extension being monitored and the extension initiating Room Monitor.

Related Features

Programmable Function Key

Room Monitor requires uniquely programmed function keys.

Operation

You must activate Room Monitor at the extension initiating the monitor and at the extension you want to monitor. You can only listen to one extension at a time.

<Key Telephone>

To activate Room Monitor by KTS (at the initiating extension):

1. Do not lift handset and do not press SPK.
2. Press Room Monitor key (PGM 1006 or SC 851: 1025).
3. Dial number of extension you want to monitor.
(Confirmation tone is heard.)
(Room Monitor key shows slow flashing.)

You can place and answer to other calls while Room Monitoring is activated.

Room Monitor (Cont'd)

Operation (Cont'd)

<Key Telephone> (Cont'd)

To activate Room Monitor by KTS (at the extension to be monitored):

1. Do not lift handset and do not press SPK.
2. Press Room Monitor key (PGM 1006 or SC 851: 1025).
3. Dial your own extension number.
   (Confirmation tone is heard.)
   (Room Monitor key shows fast flashing.)

You can place and answer to other calls while Room Monitored is activated.

To cancel Room Monitor by KTS (at either extension):

1. Press Room monitor key.
   (Confirmation tone is heard.)

<Single Line Telephone>

In the following case, SLT(B) goes to monitor to SLT(A).

At Monitored SLT(A)

1. Go off hook
2. Dial 770 ( )
3. Dial 1
4. Dial the monitoring extension number <SLT(B)>
   *Check confirmation tone
5. Set the transmitter of the handset toward the room

At monitoring SLT(B)

1. Go off hook
2. Dial 770 ( )
3. Dial 2
4. Dial the monitored extension number <SLT(A)>
   *Check confirmation tone
5. You can monitor the room status from SLT(A)
6. Go on-hook to end the monitor

To cancel the monitored status at SLT(A)

1. Go on hook

Saved Last Number Dialing

Description

Saved Last Number Dialing permits a keyset user to save their last outside number and easily redial it later on. For example, a key set user can recall a busy or unanswered number without manually dialing the digits.

The system retains the saved number until the user stories a new one in its place.

Saved Last Number Dialing saves in system memory a dialed number up to 24 digits. The number can be any combination of digits 0-9, # and *. The system remembers the digits regardless of whether the call was answered, unanswered or busy. The system normally uses the same Trunk Line group as for the initial call, However, the extension user can preselect a specific Trunk Line if desired.

Conditions

This feature available for key telephone.

Default Setting

- An extension's Class of Service permits Save number Dialed.
- No Save keys defined.
- Service Code for Saved Last Number Dialing is dial 815.

Options

None

Programming

> 0406 – COS Options, Item 49: Saved Last Number Dialing
> In an extension's Class of Service, enable (1) or disable (0) an extension's ability to use Saved Last Number Dialing.

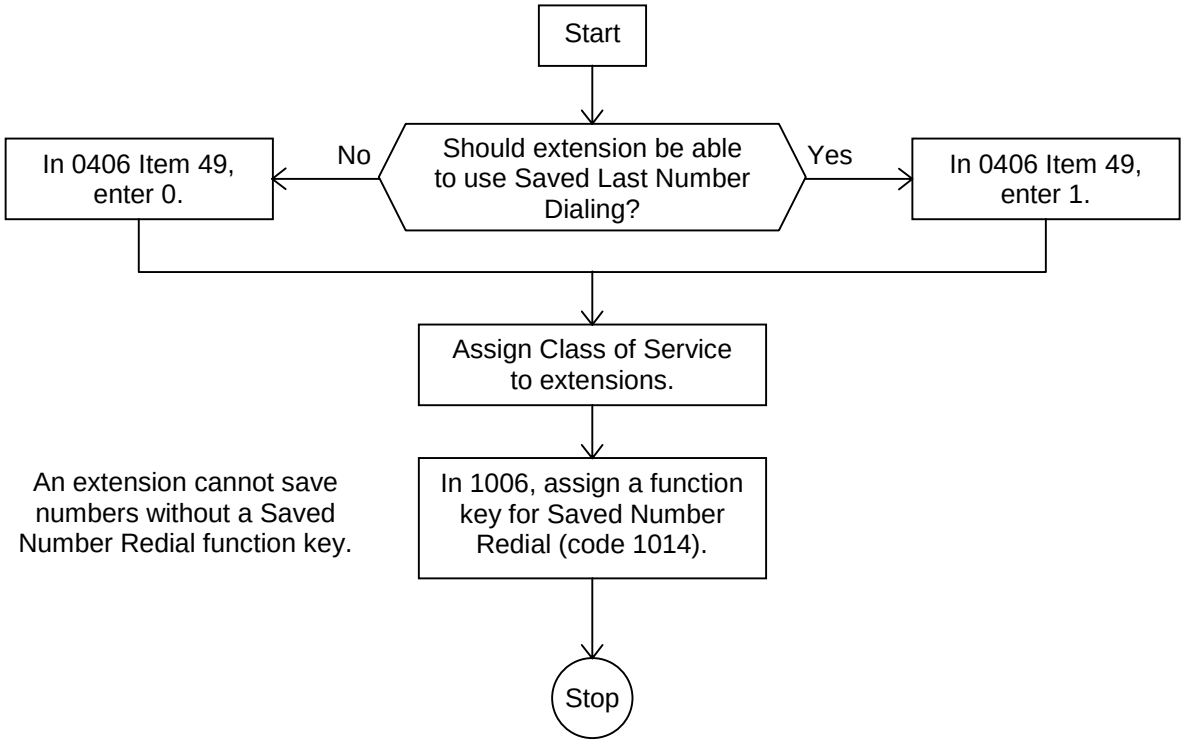
> 0511 – Service Code Setup, Part A Item 25: Saved Last Number Dialing
> Assign a service code for Saved Last Number Dialing.

> 1005 – Class of Service for Extension
> Assign a Class of Service (1-10) to an extension.

> 1006 – Programming Function Keys
> Assign a function key as a Save key (code 1014).

Saved Last Number Dialing (Cont'd)

Programming (Cont'd)


Start
Should extension be able to use Saved Last Number Dialing?
No
Yes
In 0406 Item 49, enter 0.
In 0406 Item 49, enter 1.
Assign Class of Service to extensions.
In 1006, assign a function key for Saved Number Redial (code 1014).
An extension cannot save numbers without a Saved Number Redial function key.
Stop

Related Features

Last Number Dialing

An extension user can quickly redial the last number placed.

Programmable Function Key

Function keys simplify Saved Last Number Dialing

Automatic Repeat Dialing

The system can automatically retry a Trunk Line call that was unanswered or busy.

Saved Last Number Dialing (Cont'd)

Operation

To save the outside number you just dialed (up to 24 digits):

Use this feature before hanging up.

1. Press Saved Last Number Dialing key (PGM 1006 or SC 851: 1014).

To redial a saved number:

1. Press line key.
   This selects a specific Trunk Line for the call.
2. Press Saved Last Number Dialing key (PGM 1006 or SC 851: 1014).
   The stored number dials out.

OR

1. Press idle CL key.
2. Dial 815( ).

OR

Press Save Number Dialed key (PGM 1006 or SC 851: 1014).

Saved Last Number Dialing automatically selects a Trunk Line from the same group as your original call.
The stored number dials out.

To check to see the number you have saved:

1. Press Saved Last Number Dialing key (PGM 1006 or SC 851: 1014).
   The stored number displays for six seconds.
   The stored number dials out is you:
   - *Lift the handset,*
   - *Press an idle line key,*
   - *Press an idle CL key, or*
   - *Press SPK*
2. Press CLEAR.

To clear your saved number:

1. Press idle CL key.
2. Dial 885( ).
3. Press SPK to hang up.
   (Confirmation tone is heard.)

Secretary Call (Buzzer)

Description

Secretary Call lets two co-workers alert each other without disturbing their work. To have Secretary Call, both co-workers must have Secretary Call buzzer keys. When a user presses their buzzer key, the system alerts the called extension by sending a splash tone and flashing the called extension's buzzer key. The called user can respond by placing an intercom call to the calling party. The called extension's buzzer key continues to flash until the user cancels the Secretary Call. A secretary could use this feature, for example, to get a message through to the boss in an important meeting. After being alerted, the boss could call the secretary when it's most convenient.

An extension can have Secretary Call keys for any number of extensions, limited only by the available number of programmable keys.

Conditions

(A) Secretary Call is not available to single line telephone users.

(B) Secretary Call does not set up an intercom call.

(C) When assigning Secretary Call from their own extension, a user enters the associated extension numbers. When assigning Secretary Call from system programming, use the associated extension port number.

Default Setting

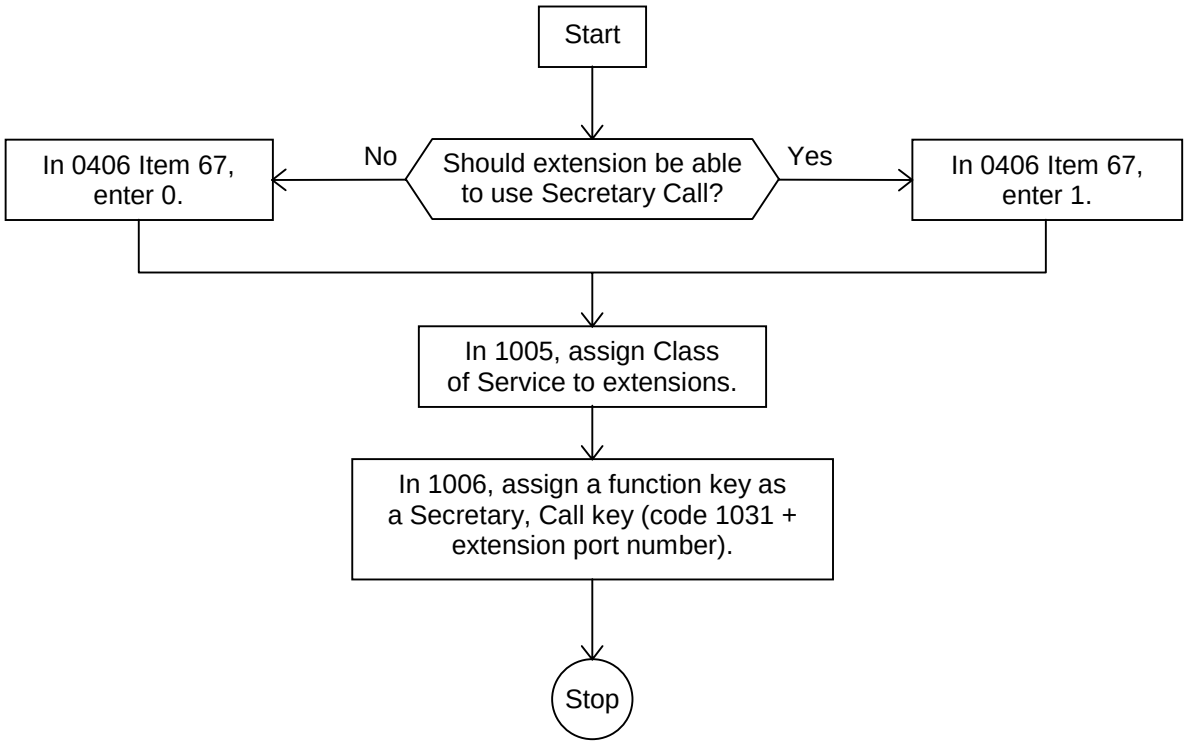
- No Secretary Call (Buzzer) keys defined.

Options

None

Secretary Call (Buzzer) (Cont'd)

Programming


Start
Should extension be able to use Secretary Call?
No
Yes
In 0406 Item 67, enter 0.
In 0406 Item 67, enter 1.
In 1005, assign Class of Service to extensions.
In 1006, assign a function key as a Secretary, Call key (code 1031 + extension port number).
Stop

Secretary Call (Buzzer) (Cont'd)

Programming

> 0406 – COS Options, Item 67: Buzzer
  In an extension's Class of Service, enable (1) or disable (0) an extension's ability to use Buzzer.
> 1005 – Class of Service for Extension
  Assign Class of Service (1-10) to extensions.
> 1006 – Programming Function Keys
  Assign function keys for Secretary Call buzzer (code 1031 plus the destination extension number). If co-workers want Secretary Call, both must have buzzer keys for each other.

Related Features

Programmable Function Key

Secretary Call requires a uniquely programmed function key.

Operation

To buzz your secretary or boss:

1. Do not lift handset.
2. Press buzzer key (PGM 1006 or SC 851: 1031 + ext).
   Your boss or secretary hears a splash tone.
   Your buzzer key lights steadily.
   Your boss's or secretary's buzzer key flashes fast.

To check to see who left you a Secretary Call:

1. Do not lift handset.
2. Press CHECK.
3. Press flashing Secretary Call key.
4. Press CLEAR.

To answer your Secretary Call indication:

1. Place an Intercom call to the extension that called you.

To cancel a Secretary Call you left at another extension:

1. Press your lit Secretary Call key.

To cancel a Secretary Call left at your extension:

1. Do not lift handset.
2. Press flashing Secretary Call key.

Secretary Call Pickup

Description

Secretary Call Pickup lets an extension user easily reroute calls intended for a co-worker to themselves. By pressing a Secretary Call Pickup key, the user can have all calls to a co-worker's phone ring or voice-announce theirs instead. Secretary Call Pickup is a simplified type of Follow Me for employees that work closely together. This feature could be helpful to customer service representatives leaves their desk, an associate could press the Secretary Call Pickup key to intercept all their calls.

An extension can have Secretary Call Pickup keys for any number of extensions, limited only by the available number of programmable keys.

Conditions

Secretary Call Pickup is not available to single line telephone users.

Default Setting

No Secretary Call Pickup keys defined.

Options

None

Programming

> 1006 – Programming Function Keys
Assign function keys for Secretary Call Pickup (code 1032). Unlike Secretary Call, you do not have to program a corresponding key at the source and destination extensions.

Related Features

Follow Me

An extension user can also have with Follow Me reroute a co-worker's calls to themselves.

Secretary Call (Buzzer)

Co-workers can alert each other without disturbing their work.

Secretary Call Pickup (Cont'd)

Operation

To activate Secretary Call Pickup:

1. Press your Secretary Call Pickup key (PGM 1006 or SC 851: 1032 + ext).

   You hear a splash tone and your Secretary Call Pickup key lights. Calls intended for covered extension ring your phone instead.

To cancel Secretary Call Pickup:

1. Press your lit Secretary Call Pickup key (PGM 1006 or SC 851: 1032 + ext).

To check a key's Secretary Call Pickup assignment:

1. Press CHECK.
2. Press your Secretary Call Coverage key (PGM 1006 or SC 851: 1032 + ext).
3. Press CLEAR.

Selectable Ring Tone

Description

An extension user can change the way calls ring their phone. Selectable Ring Tone allows an extension user to set up unique ringing for their calls. This is important in a crowded work area where several phones are close together. Because their phone has a characteristic ring, the user always can tell when it's their phone ringing.

Conditions

This feature available for key telephone.

Default Setting

- An extension's Class of Service allows using Selectable Ring Tone.
- An extension's Class of Service prevents checking Selectable Ring Tone.
- Service Code for Trunk line incoming ring tone switching is dial 820.
- Service Code for Check of ring tone is dial 811.

Options

None

Programming

> 0406 – COS Options, Item 59: Ringing tone selection
  In an extension's Class of Service, enable (1) or disable (0) an extension's ability to change the incoming ring tones.

> 0406 – COS Options, Item 86: Checking incoming ring tone
  In an extension's Class of Service, enable (1) or disable (0) an extension's ability to check the Selectable Ring Tone.

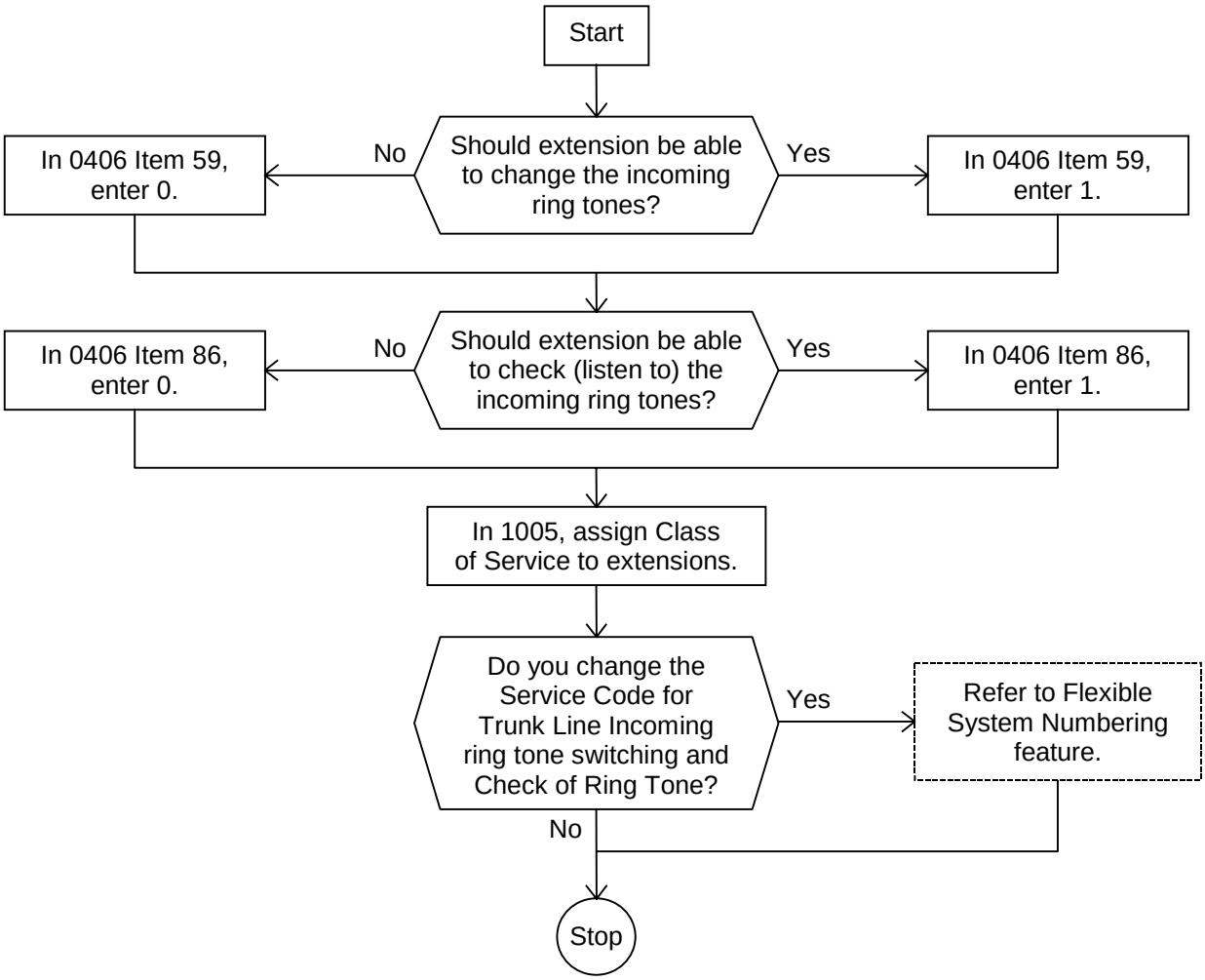
> 0511 – Service Code Setup, Part A
  Item 59: Trunk Line incoming ring tone switching
  Assign a service code for Trunk line incoming ring tone switching.

> 0511 – Service Code setup, Part A Item 80: Check of ring tone
  Assign a service code for check of ring tone.

> 1005 – Class of Service for Extension
  Assign a Class of Service (1-10) to an extension.

Selectable Ring Tone (Cont'd)

Programming (Cont'd)


Start
Should extension be able to change the incoming ring tones?
No
In 0406 Item 59, enter 0.
Yes
In 0406 Item 59, enter 1.
Should extension be able to check (listen to) the incoming ring tones?
No
In 0406 Item 86, enter 0.
Yes
In 0406 Item 86, enter 1.
In 1005, assign Class of Service to extensions.
Do you change the Service Code for Trunk Line Incoming ring tone switching and Check of Ring Tone?
Yes
Refer to Flexible System Numbering feature.
No
Stop

Selectable Ring Tone (Cont'd)

Related Features

None

Operation

To change your extension's incoming ring tones:

1. Press idle CL key.
2. Dial 820( ).
3. Dial 1 to set Intercom ring; 2 to set Trunk Line ring.
4. Dial code for the desired ring pattern.
   1 High pitch
   2 Medium pitch
   3 Low pitch
5. Press SPK to hang up.

To listen to the incoming ring choices:

1. Press idle CL key.
2. Dial 811( ).
3. Dial 1 to listen to Intercom ring; 2 to listen to Trunk Line ring.
   For Trunk Line ring, enter the tone you want to listen to followed by the System.
4. Dial code for the desired ring pattern.
   1:High pitch
   2:Medium pitch
   3:Low pitch
5. Press SPK to hang up.

Series Call

Description

Series Call is a method of transferring a call so it automatically returns to the transferring extension. Series Calling saves transferring steps between users. For example, a Customer Service Representative (CSR) has a client of certain costs when Tech Service is done. Rather than transferring the call back and forth, the CSR can use Series Call to Technical Service and announce, "I have John on the phone. I need to talk to him again. Just hang up when you're done and he'll ring back to me."

Conditions

This feature available for key telephone.

Default Setting

No series Call keys defined.

Options

None

Programming

> 0402 – System Options, Part B, Item 2: Transfer key operation mode
  Enter 1 for this option to assign the TRFR key as a Series Call key.

> 1006 – Programming Function Keys
  Assign a programmable key as a Series Call key (code 1035).

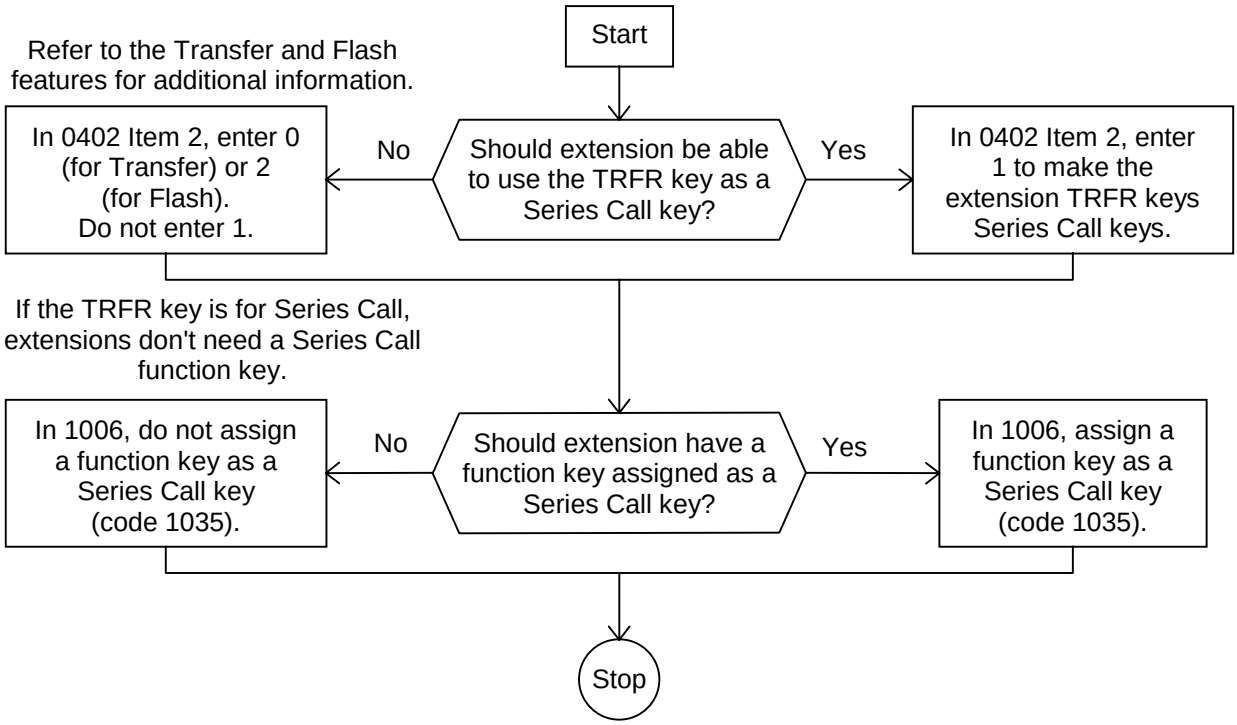
Related Features

Transfer

An extension user can extend (send) a call to a co-worker.

Series Call (Cont'd)

Programming (Cont'd)


Start
Refer to the Transfer and Flash features for additional information.
Should extension be able to use the TRFR key as a Series Call key?
No
Yes
In 0402 Item 2, enter 0 (for Transfer) or 2 (for Flash). Do not enter 1.
In 0402 Item 2, enter 1 to make the extension TRFR keys Series Call keys.
If the TRFR key is for Series Call, extensions don't need a Series Call function key.
Should extension have a function key assigned as a Series Call key?
No
Yes
In 1006, do not assign a function key as a Series Call key (code 1035).
In 1006, assign a function key as a Series Call key (code 1035).
Stop

Operation

To place a Series Call to a co-worker:

1. Place or answer Trunk Line call.
2. Press HOLD.
3. Dial co-worker's extension number.

   Co-worker must lift handset to respond to your announcement.
4. Press Series Call key (PGM 1006 or SC 851: 1035) but do not hang up.

   When your co-worker hangs up the call, the system makes an automatic live transfer back to your extension.

Station Message Detail Recording (SMDR)

Description

Station Message Detail Recording (SMDR) provides a record of the system's Trunk Line calls. Typically, the record outputs to a customer-provided printer, terminal or SMDR data collection device. SMDR allows you to monitor the usage at each extension and Trunk Line. This makes change-back and traffic management easier.

SMDR provides the following options:

- **Abandoned Call Reporting**

  The SMDR report includes calls that rang into the system but were unanswered (i.e., abandoned). SMDR can include all abandoned calls or only those abandoned calls that rang longer than the specified duration. The Abandoned Call Report helps you keep track of lost business.

- **Blocked Call Reporting**

  When Toll Restriction blocks a call, you can have the blocked call information print on the SMDR report. If you prefer, you can have SMDR exclude these types of calls. With Blocked Call Reporting, you can better customize Toll Restriction for the site's application.

- **Customized Date Format**

  The SMDR header can show the report date in one of three formats:

  American, European or Japanese. Set the format for your preference.

- **Data Call Tracking**

  Data Call Tracking can log the system's internal data calls. Since SMDR normally logs external (Trunk Line) data calls, Data Call Tracking lets you get a complete picture of data terminal activity.

- **Digit Counting**

  With Digit Counting, SMDR can selectively keep track of toll calls.

  For example, if the digit count is nine, SMDR won't include toll calls within the home area code. Digit Counting permits SMDR to include only the types of calls you want to monitor.

- **Digit Masking**

  Digit Masking lets you "X" out portions of the number dialed on the SMDR report. A digit mask of seven, for example, masks out all Trunk codes (NNXs) and local addresses. Digit Masking makes it easier to keep track of calling patterns, without having to interpret each individual number. You can also use Digit Masking to block out access and security codes.

Station Message Detail Recording (SMDR) (Cont'd)

Description (Cont'd)

- **Duration Monitoring**

  SMDR can include calls of any duration, or only those that last longer than the interval you specify. If you want to keep trunk of all Trunk Line activity, use a short duration.

  To keep trunk of only significant usage, use a longer duration.

- **Incoming Call Exclusion**

  You can selectively exclude all incoming call from the SMDR report.

- **PBX Call Reporting**

  If you system is behind a PBX, you can have SMDR monitor all traffic into the PBX or just calls placed over PBX Trunk Lines. The SMDR record can include all PBX calls (including calls to PBX extensions) or just calls that include the PBX Trunk Line access code.

- **Usage Summaries**

  SMDR can automatically print daily, weekly and monthly call activity summaries. Each summary includes the total number of regular Trunk Line calls and ISDN Trunk Line calls, and the costs for each type.

  The daily report prints every day at midnight. The weekly report prints every Sunday night at midnight. The monthly report prints at midnight on the last day of the month.

- **ALB Output Control**

  The system provides additional option on SMDR whether ALB (All Line Busy) information is output or not.

- **Conversion Table Name Output Control**

  In case that the system receives MSN / DDI call on ISDN , the “Conversion Table Name” (Command 1806) can be output to the “LINE” area on SMDR.

- **Date Information Output Control**

  The system provides additional option on SMDR whether Date information (Day / Month) is output or not.

Conditions

(A) The SMDR report does not include voice Intercom calls.

(B) SMDR requires the installation of a DCI (Data Communications Interface). Once you designate a DCI for SMDR, you cannot use that extension for placing and answering other data calls.

(C) The SMDR call buffer stores 300 calls. The buffer stores calls when the SMDR device is unavailable. When the buffer fills, each new call in causes an old call to be replaced.

Station Message Detail Recording (SMDR) (Cont'd)

Description (Cont'd)

Default Setting

- No DCI circuit types programmed.
- System and Alarm Reports use DCI port 1.
- System date is American format.
- No SMDR digits masked.
- SMDR includes all outgoing calls-regardless of number of digits dialed.
- SMDR printer port is not assigned.
- Outgoing calls of any duration print.
- All "No Answer" calls print.
- SMDR report includes all calls blocked by Toll Restriction.
- If system is behind a PBX, all calls to PBX print an SMDR report.
- Internal data calls print on SMDR report.
- All report summaries enabled.
- No DCI extension numbers defined.
- All Trunk lines print out on SMDR report.
- Internal RS-232-C parameters for SMDR DCI are 2400 baud, no stop bits, 8 data bits and no parity.
- All DCI ports set for RS-232-C.
- All DCI ports not initialized.
- Incoming call report not out put.
- Extension status printouts by extension name.
- The system outputs “ALB” information to printer / PC.
- The system does not output the “Conversion Table Name” information to printer / PC.
- The system does not output “Date” information to printer / PC.

Options

DX2E-DCI-A/B or DX2E-3DCI-A

Printout Format

1. Conversation table name output

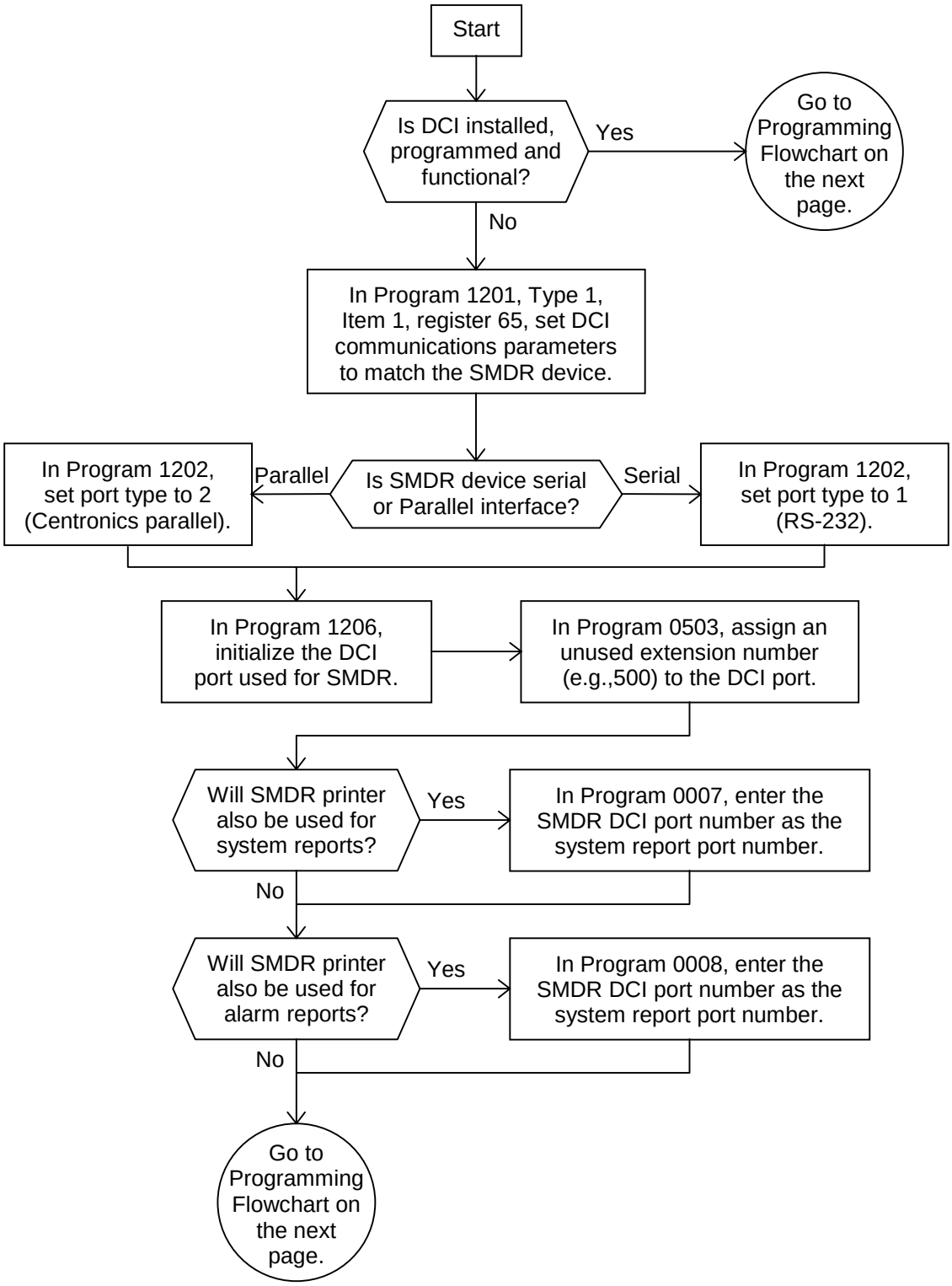
	CLASS	TIME	LINE	DURATION	STATION	DIALED No./CLI	RD/COST	ACCOUNT
01	IVIN	10:10	John		EXT200	44556677		

2. Date Information output

	CLASS	TIME	DATE	LINE	DURATION	STATION	DIALED No./CLI	RD/COST	ACCOUNT
01	POT	10:10	10 / 12	001	00:01:10	EXT200	044813710X		

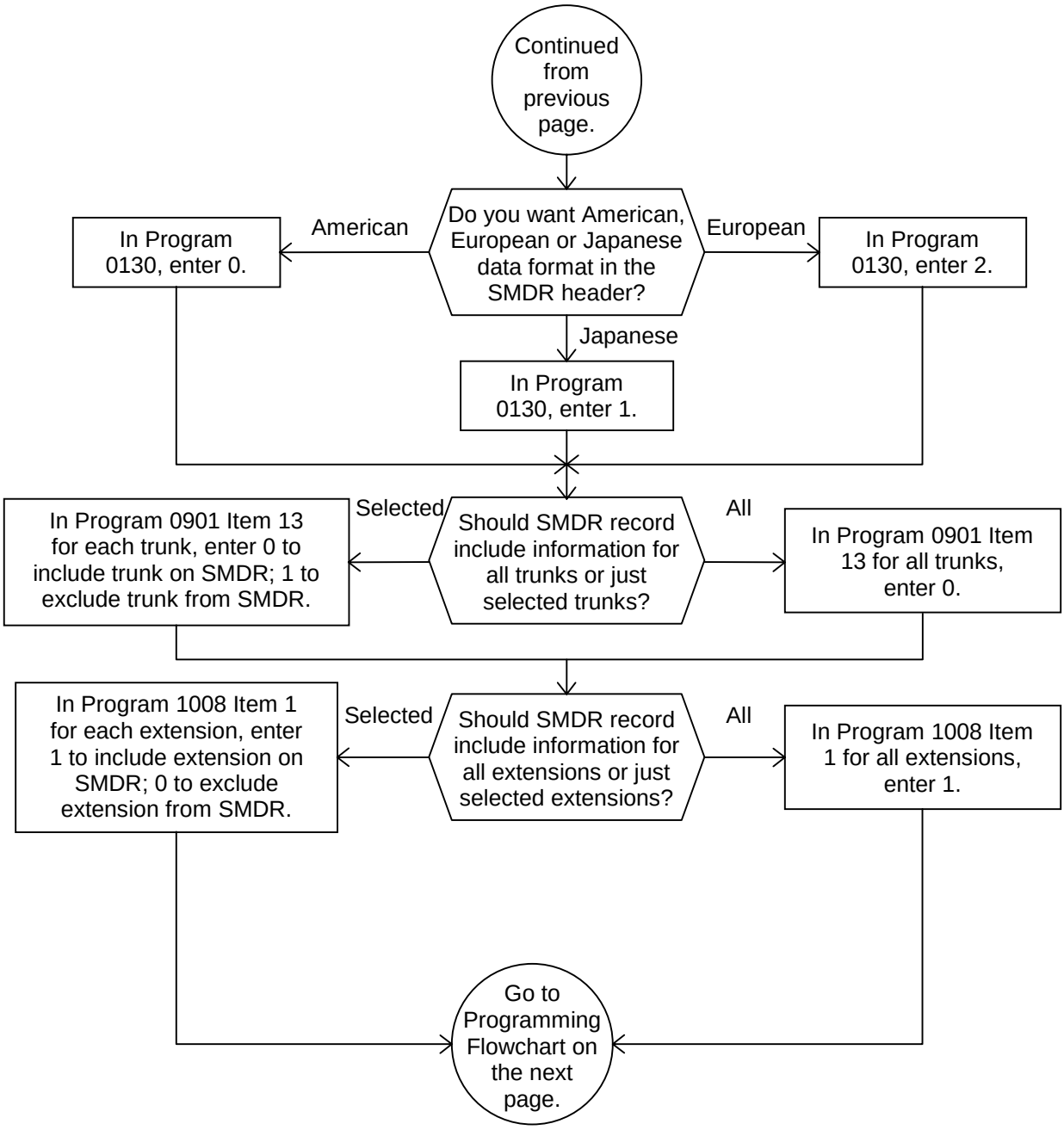
Station Message Detail Recording (SMDR) (Cont'd)

Programming


Start
Is DCI installed, programmed and functional?
Yes
Go to Programming Flowchart on the next page.
No
In Program 1201, Type 1, Item 1, register 65, set DCI communications parameters to match the SMDR device.
In Program 1202, set port type to 2 (Centronics parallel).
Parallel
Is SMDR device serial or Parallel interface?
Serial
In Program 1202, set port type to 1 (RS-232).
In Program 1206, initialize the DCI port used for SMDR.
In Program 0503, assign an unused extension number (e.g.,500) to the DCI port.
Will SMDR printer also be used for system reports?
Yes
In Program 0007, enter the SMDR DCI port number as the system report port number.
No
Will SMDR printer also be used for alarm reports?
Yes
In Program 0008, enter the SMDR DCI port number as the system report port number.
No
Go to Programming Flowchart on the next page.

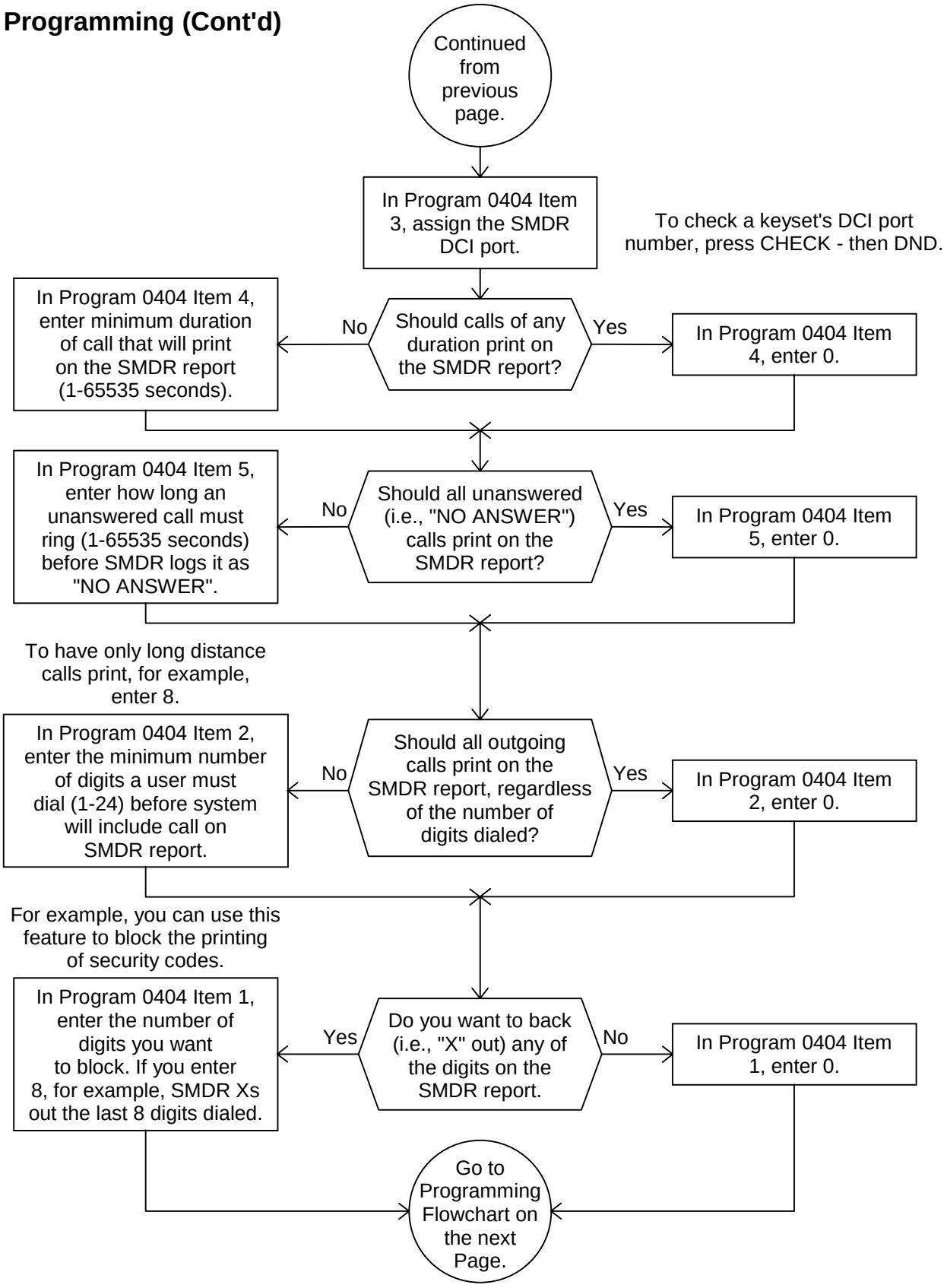
Station Message Detail Recording (SMDR) (Cont'd)

Programming (Cont'd)


Continued from previous page.
Do you want American, European or Japanese data format in the SMDR header?
American
In Program 0130, enter 0.
European
In Program 0130, enter 2.
Japanese
In Program 0130, enter 1.
Should SMDR record include information for all trunks or just selected trunks?
Selected
In Program 0901 Item 13 for each trunk, enter 0 to include trunk on SMDR; 1 to exclude trunk from SMDR.
All
In Program 0901 Item 13 for all trunks, enter 0.
Should SMDR record include information for all extensions or just selected extensions?
Selected
In Program 1008 Item 1 for each extension, enter 1 to include extension on SMDR; 0 to exclude extension from SMDR.
All
In Program 1008 Item 1 for all extensions, enter 1.
Go to Programming Flowchart on the next page.

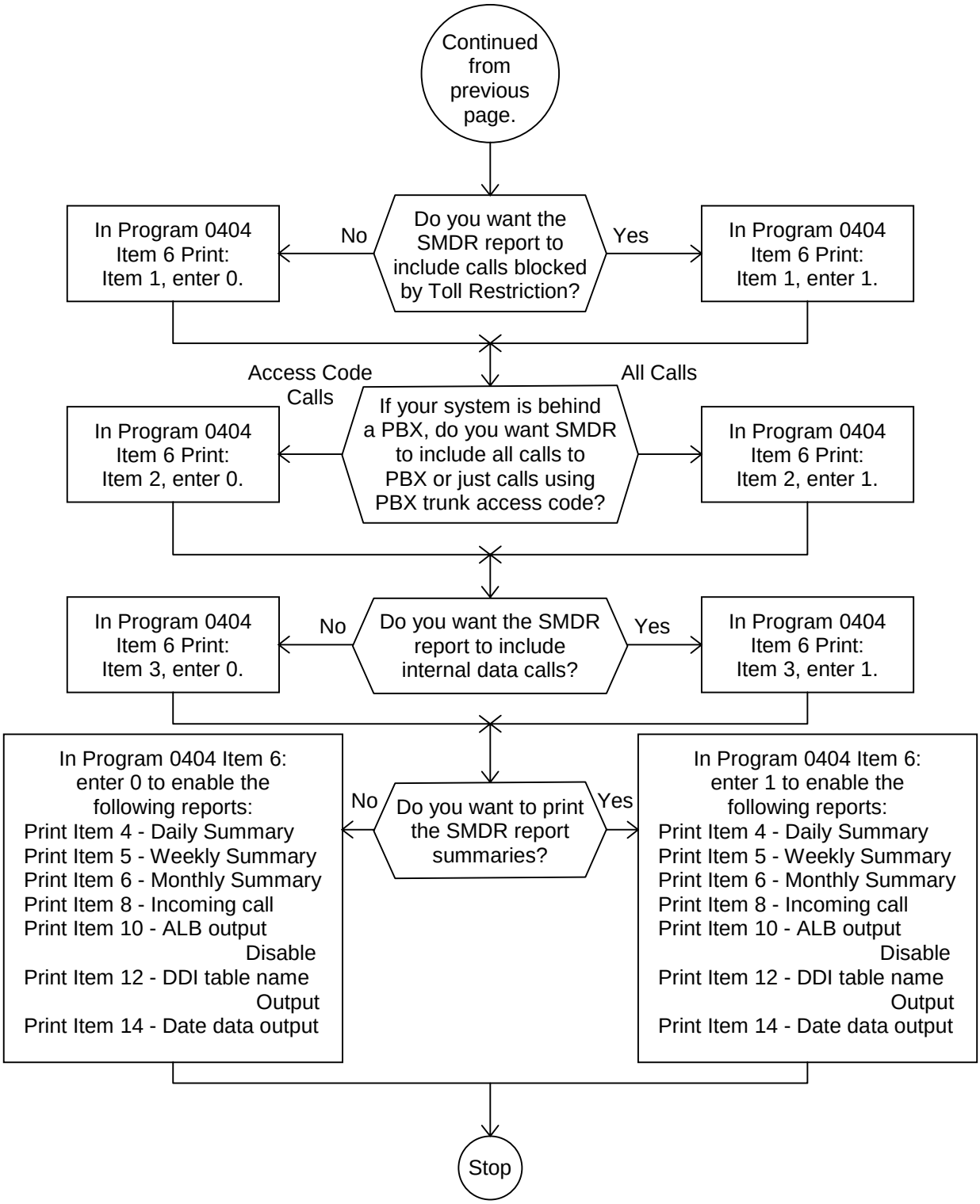
Station Message Detail Recording (SMDR) (Cont'd)

Programming (Cont'd)


Continued from previous page.
In Program 0404 Item 3, assign the SMDR DCI port.
To check a keyset's DCI port number, press CHECK - then DND.
Should calls of any duration print on the SMDR report?
No
Yes
In Program 0404 Item 4, enter minimum duration of call that will print on the SMDR report (1-65535 seconds).
In Program 0404 Item 4, enter 0.
Should all unanswered (i.e., "NO ANSWER") calls print on the SMDR report?
No
Yes
In Program 0404 Item 5, enter how long an unanswered call must ring (1-65535 seconds) before SMDR logs it as "NO ANSWER".
In Program 0404 Item 5, enter 0.
To have only long distance calls print, for example, enter 8.
Should all outgoing calls print on the SMDR report, regardless of the number of digits dialed?
No
Yes
In Program 0404 Item 2, enter the minimum number of digits a user must dial (1-24) before system will include call on SMDR report.
In Program 0404 Item 2, enter 0.
For example, you can use this feature to block the printing of security codes.
Do you want to back (i.e., "X" out) any of the digits on the SMDR report.
Yes
No
In Program 0404 Item 1, enter the number of digits you want to block. If you enter 8, for example, SMDR Xs out the last 8 digits dialed.
In Program 0404 Item 1, enter 0.
Go to Programming Flowchart on the next Page.

Station Message Detail Recording (SMDR) (Cont'd)

Programming (Cont'd)


Continued from previous page.
Do you want the SMDR report to include calls blocked by Toll Restriction?
No
Yes
In Program 0404 Item 6 Print: Item 1, enter 0.
In Program 0404 Item 6 Print: Item 1, enter 1.
If your system is behind a PBX, do you want SMDR to include all calls to PBX or just calls using PBX trunk access code?
Access Code Calls
All Calls
In Program 0404 Item 6 Print: Item 2, enter 0.
In Program 0404 Item 6 Print: Item 2, enter 1.
Do you want the SMDR report to include internal data calls?
No
Yes
In Program 0404 Item 6 Print: Item 3, enter 0.
In Program 0404 Item 6 Print: Item 3, enter 1.
Do you want to print the SMDR report summaries?
No
Yes
In Program 0404 Item 6: enter 0 to enable the following reports:
Print Item 4 - Daily Summary
Print Item 5 - Weekly Summary
Print Item 6 - Monthly Summary
Print Item 8 - Incoming call
Print Item 10 - ALB output Disable
Print Item 12 - DDI table name Output
Print Item 14 - Date data output
In Program 0404 Item 6: enter 1 to enable the following reports:
Print Item 4 - Daily Summary
Print Item 5 - Weekly Summary
Print Item 6 - Monthly Summary
Print Item 8 - Incoming call
Print Item 10 - ALB output Disable
Print Item 12 - DDI table name Output
Print Item 14 - Date data output
Stop

Station Message Detail Recording (SMDR) (Cont'd)

Programming (Cont'd)

> 0008 – System Alarm Report Setup
  If the SMDR printer will also be used for alarm reports, enter the SMDR DCI port number as the alarm report port number.

> 0130 – Date Format for SMDR and System Reports
  Set the date format for SMDR (0 = American, l = Japanese or 2 = European).

> 0404 – SMDR Options, Item l: Omit (Mask) digits
  Enter the number of digits (1-24) you want SMDR to black (i.e., "X" out). Enter 0 not to block any digits.

> 0404 – SMDR Options, Item 2: Min. digits
  Enter the minimum number of digits a user must dial (1-24) before the system includes a call on the SMDR report. Enter 0 to include all outgoing calls, regardless of the number of digits dialed.

> 0404 – SMDR Options, Item 3: Printer output port (DCI port No.)
  Enter the port number of the DCI assigned to the SMDR printer.

> 0404 – SMDR Options, Item 4: Min. call duration
  Enter the minimum duration of a call (1-65535) that will print on the SMDR report. Enter 0 to have calls of any duration print.

> 0404 – SMDR Options, Item 5: Min. ringing time
  Enter the how long an unanswered call must ring (1-65535) before SMDR lags it as "No Answer". Enter 0 to allow all "No Answer" calls to print.

> 0404 – SMDR Options, Item 6: Printer output options 1
  (Toll restriction call)
  Enter 1 if you want the SMDR report to include calls blocked by Toll Restriction. Enter 0 to exclude blocked calls.

> 0404 – SMDR Options, Item 6: Printer output options 2
  (PBX call)
  If system is behind a PBX, enter 1 to have SMDR include all calls to the PBX. Enter 0 to have SMDR include only calls dialed using PBX Trunk Line access code.

> 0404 – SMDR Options, Item 6: Printer output options 3
  (Extension data call)
  Enter 1 if you want the SMDR report to include internal data calls.
  Enter 0 if you want the SMDR report to exclude internal data calls.

> 0404 – SMDR Options, Item 6: Printer output options 4-6
  (Summary (daily) (weekly) (monthly))
  Enter 1 to enable a summary report. Enter 0 to disable a summary report.

> 0404 – SMDR Options, Item 6: Printer output options 8
  Enter 1 to enable an incoming call report. Enter 0 to disable an incoming call report.

Station Message Detail Recording (SMDR) (Cont'd)

Programming (Cont'd)

> 0404 – SMDR Options, Item 6: Printer output options 9
Enter 0 to printout the extension status by extension name. Enter 1 to printout the extension status by extension number.

> 0404 – SMDR Options, Item 6: Printer output options 10
Assign “output(0)” or “Not output(1)” for ALB information.

> 0404 – SMDR Options, Item 6: Printer output options 12
Assign “output(1)” or “Not output(0)” for “Conversion table name” information in case of MSN/DDI call.

> 0404 – SMDR Options, Item 6: Printer output options 14
Assign “output(1)” or “Not output(0)” for “Date” information.

> 0503 – DCI Extension Number
Assign an unused extension number (e.g., 500) to the DCI port assigned to SMDR.

> 0901 – Basic Trunk Line Port Setup, Part A Item 13: SMDR print-out
For each Trunk Line, enter 0 if Trunk Line's calls should appear on SMDR report. Enter 0 if extension's calls should not appear on SMDR report.

> 1008 – Basic Extension Port Setup (Part B), Item 1: SMDR printout
For each Extension, enter 1 if extension's calls should appear on SMDR report. Enter 0 if extension's calls should not appear on SMDR report.

> 1201 – DCI Internal Pattern Setup, Type 1, Item 1, S-register 65
Set the DCI communications parameters to match the SMDR device.

> 1202 – DCI Port Type
Set this option to 1 if the SMDR device is serial. Set this option to 2 if the SMDR device is Centronics parallel.

> 1206 – Initialize DCI
Initialize the DCI port selected for SMDR.

Related Features

PBX Compatibility

To use the PBX Call Reporting option, program system for behind PBX operation.

Transfer

The extension that initially answers or places a call "owns" the SMDR record for the call. For example, if extension 218 transfers a Trunk Line call to extension 220 does not show on the SMDR record as part of the transferred call.

Operation

Once installed and programmed, SMDR operation is automatic.

Text Message

Description

An extension user can select a preprogrammed Text Message for their extension. Display keyset callers see the selected message when they call the user's extension. Text Massage provides personalized messaging. For example, an extension user could select the message "GONE FOR THE DAY".

Any display keyset user calling the extension would see the message.

Other than displaying the message, the system puts the call through normally. See Default Setting below for a list of the standard messages.

Each System has 20 Text Messages.

An extension user can add digits for date, time or phone number after messages l-8 and 10. For example, an extension user could select the message "ON VACATION UNTIL" and then enter the date. Callers see the original message followed by the appended date. They would then be able to tell when the user was coming back from vacation.

Conditions

This feature available for key telephone with display.

Default Setting

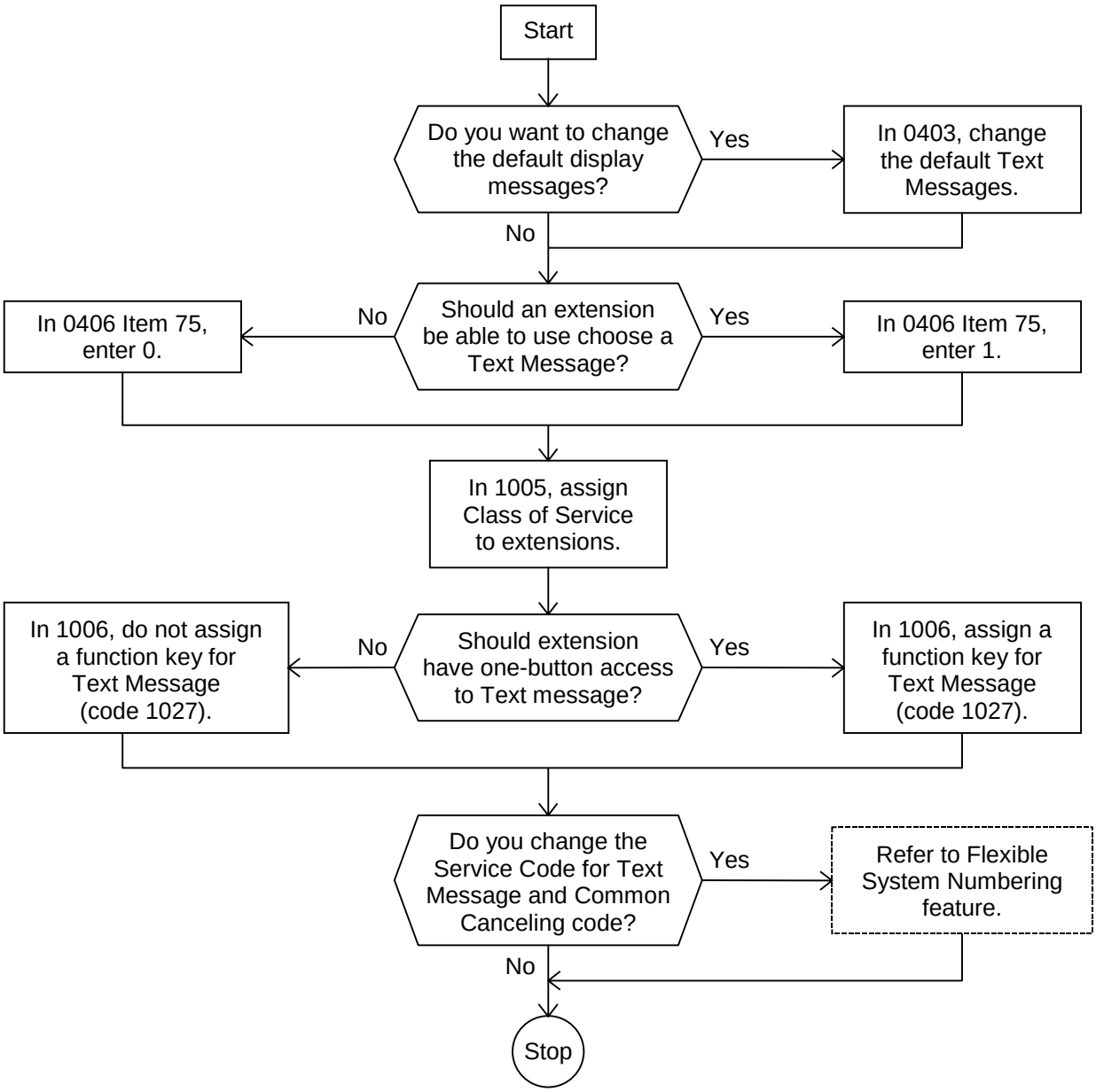
- The default messages are:

No.	Message	Appended with...
1.	IN MEETING UNTIL	Time (when meeting done)
2.	OUT UNTIL	Time (when returning)
3.	OUT-PLEASE CALL	9 digits (phone number)
4.	PLEASE CALL ME ON	9 digits (phone number)
5.	BUSY CALL AFTER	9 digits
6.	OUT FOR LUNCH BACK AT	Time (when returning)
7.	BUSINESS TRIP UNTIL	Date (when returning)
8.	BUSINESS TRIP CALL	9 digits (where returning)
9.	GONE FOR THE DAY	
10.	ON VACATION UNTIL	Date (when returning)
11-20	MESSAGE 11-20	

- An extension's Class of Service allows using Text Message.
- No Text Message keys programmed.
- Service Code of Text Message is dial 836.
- Service code of Common Canceling Service Code is dial 720.

Text Message (Cont'd)

Programming


Start
Do you want to change the default display messages?
Yes
In 0403, change the default Text Messages.
No
Should an extension be able to use choose a Text Message?
No
In 0406 Item 75, enter 0.
Yes
In 0406 Item 75, enter 1.
In 1005, assign Class of Service to extensions.
Should extension have one-button access to Text message?
No
In 1006, do not assign a function key for Text Message (code 1027).
Yes
In 1006, assign a function key for Text Message (code 1027).
Do you change the Service Code for Text Message and Common Canceling code?
Yes
Refer to Flexible System Numbering feature.
No
Stop

Text Message (Cont'd)

Options

None

Programming (Cont'd)

> 0103 – Time and Date Display Mode
Enter 1-4, 12-hour mode display on Text Message. Enter 5-8, 24-hour mode display on Text Message.

> 0403 – Text Messages
Program the Text Messages (1-20).

> 0406 – COS Options, Item 75: Text Message
In an extension's Class of Service, enable (1) or disable (0) an extension's ability to use Text Messaging.

> 0511 – Service Code Setup, Part A Item 6: Text Message
Assign a service code for text message.

> 0514 – Service Code Setup, Part B
Item 10: Common canceling service code
Assign a service code for common canceling service code.

> 1005 – Class of Service for Extension
Assign a Class of Service (1-10) to an extension.

> 1006 – Programming Function Keys
Assign a function key for Text Messaging (code 1027).

Related Features

Programmable Function Key

Function Keys simplify Text Message operation.

Operation

To select a message:

1. Press idle CL key.
2. Dial 836( ).
   OR
   Press Text Messaging key (PCM 1006 or SC 851: 1027 + 00-20).
3. Dial the message number (1-20).
   You may be able to append a message with digits (phone number − shown as ########), the time of day (24-hour) or the date. The time displays in 12-hour format.
   To scroll through the messages, press VOL ▲ or VOL ▼ .
4. Press SPK to hang up.
   A co-worker calling your extension sees the message you selected.

Text Message (Cont'd)

Operation (Cont'd)

To cancel Selectable Display Messaging:

1. Press idle CL key.
2. Dial 836( ).

   OR

   Press Text Messaging key (PGM 1006 or SC 851: 1027 + 00).
3. Press SPK to hang up.

   OR

1. Press idle CL key.
2. Dial 720( ). (Common Canceling Service Code)
3. Press SPK to hang up.

When you cancel of alarm clock by dial 720, these features are cancelled at same time, DND, Call Forward, Repeat Dial, Message Waiting, Head-set Mode and Text Message.

Time and Date

Description

The system uses Time and Date for:

Central Office Calls (Access Maps)
Class of Service (Class)
Direct Inward Lines
Display Telephones
FAX Machine Compatibility
Night Service (Automatic)
Programmable Trunk Line Parameters
Ring Groups
Station Message Detail Recording
System Reports
System Reports
Toll Restriction (Class)
Trunk Line Group Routing

Conditions

This feature available for key telephone with display.

The system returns the Time and Date after a power failure or system reset.

Default Setting

- In a new system, Time and Date is initially 00:00:00 00/00/00.
- The default Time and Date display mode is: Month-Day of Month Day of Week Hours: Minutes AM/PM (i.e., 3-10 TUE 3: 15 PM).
- User Time and Date password is 0000.
- An extension's Class of Service allows it to set the Time and Date.
- Service Code for time and date setting is dial 828.

Options

None

Programming

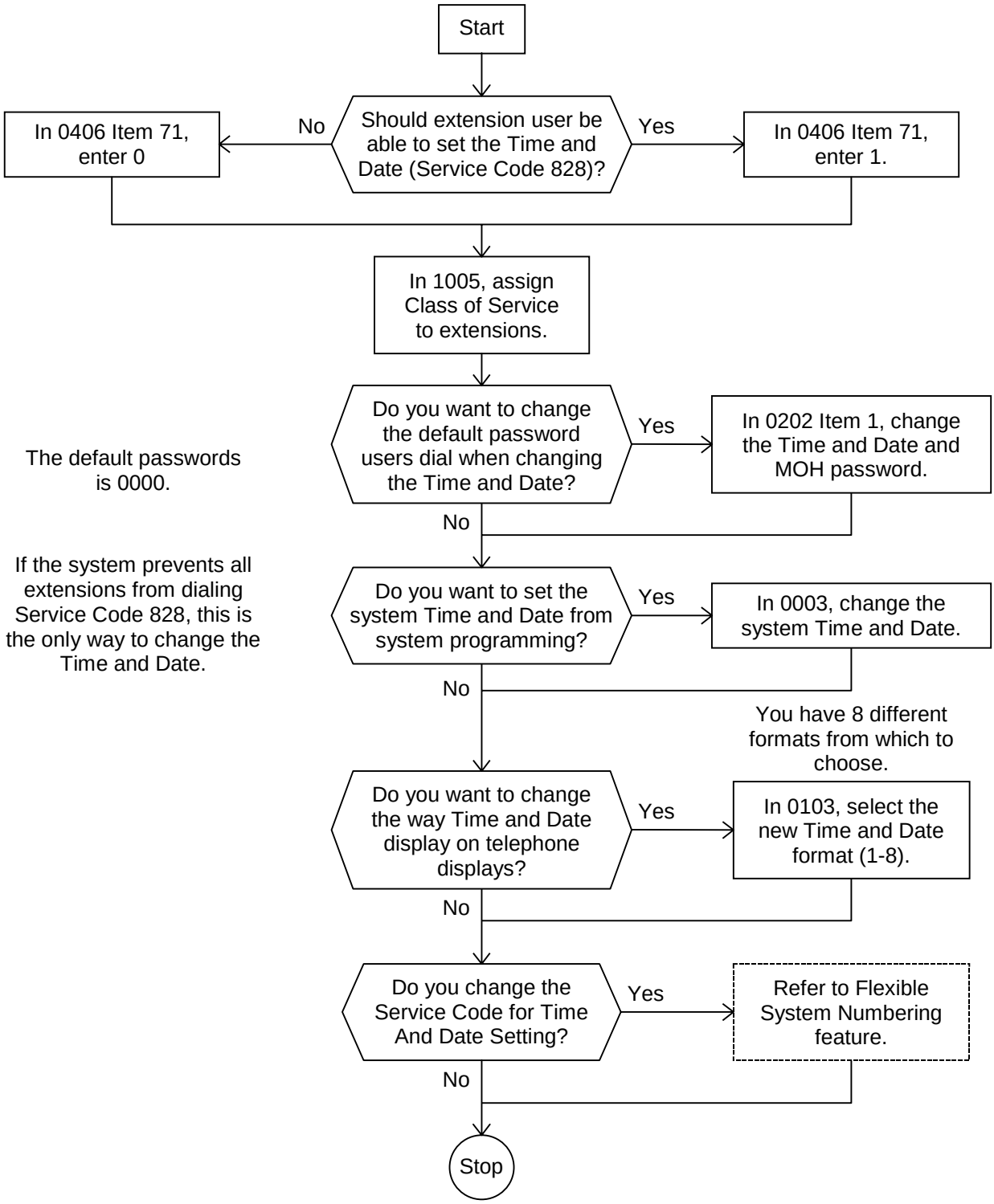
> 0003 – Time and Date
Set the system Time and Date from your administrator's telephone.

> 0103 – Time and Date Display Made
Select the display mode (type l-8) for Time and Date (i.e., Time and Date format).

> 0202 – Setting the User Passwords
Set the password used for setting the Time and Date (i.e., with Service Code 828).

Time and Date (Cont'd)

Programming (Cont'd)


Start
Should extension user be able to set the Time and Date (Service Code 828)?
No
In 0406 Item 71, enter 0
Yes
In 0406 Item 71, enter 1.
In 1005, assign Class of Service to extensions.
Do you want to change the default password users dial when changing the Time and Date?
Yes
In 0202 Item 1, change the Time and Date and MOH password.
The default passwords is 0000.
No
Do you want to set the system Time and Date from system programming?
Yes
In 0003, change the system Time and Date.
If the system prevents all extensions from dialing Service Code 828, this is the only way to change the Time and Date.
No
You have 8 different formats from which to choose.
Do you want to change the way Time and Date display on telephone displays?
Yes
In 0103, select the new Time and Date format (1-8).
No
Do you change the Service Code for Time And Date Setting?
Yes
Refer to Flexible System Numbering feature.
No
Stop

Time and Date (Cont'd)

Programming (Cont'd)

> 0406 – COS Options, Item 71: Time and Date setting
  In an extension's Class of Service, enable (1) or disable (0) the extension's ability to set the Time and Date.
> 0511 – Service Code Setup, Part A Item 39: Time and date setting
  Assign a service code for time and date setting.
> 1005 – Class of Service for Extension
  Assign a Class of Service (1-10) to an extension.

Related Features

None

Operation

To set the system Time and Date:

1. Press idle CL key.
2. Dial 828( ).
3. Dial the password (normally 0000).
4. Dial two digits for the year (e.g., 92).
5. Dial two digits for the month (01-12).
6. Dial two digits for the day (01-31).
7. Dial the day of the week (0-6, 0 = Sunday, 6 = Saturday).
8. Dial two digits for the hour (24-hour clock).
9. Dial two digits for the minutes (00-60).
10. Press SPK to hang up.

Toll Restriction

Description

Toll Restriction limits the numbers an extension user may dial. By allowing extensions to place only certain types of calls, you can better control long distance costs. The system applies Toll Restriction according to an extension's Toll Restriction Class. There are 8 Toll Restriction Classes.

Toll Restriction offers the following capabilities:

- **Common Permit Code Table**

  Use the Common Permit Code Table when you have numbers you want all Toll Restriction Classes to dial. To let all users dial 911, for example, put 911 in the Common Permit Code Table. The Common Permit Code Table overrides the Restrict Code and Common Restrict Code Tables. Each code is 4 digits max, using 0-9, #, *, and FLSH (as a wild card).

- **Common Restrict Code Table**

  The Common Restrict Code Table lets you globally restrict certain numbers for all Toll Restriction Classes. To prevent all users from dialing directly assistance (411), for example, put 411 in the Common Restrict Code Tables.

- **Restrict Code Table**

  When you want Toll Restriction to allow most calls and restrict only selected calls, use the Restrict Code Table. (If the same Toll Restriction Class has both Permit and Restrict Code Tables, the system restricts that you enter only in the Restrict Code Table. Calls entered in both tables are not restricted.) The system has four tables, with 60 enters (restricted codes) in each table. A restricted code is 12 digits maximum, using 0-9, #, * and FLSH (as wild card).

- **Permit Code Table**

  The Permit Code Table lets you set up Toll Restriction so that users can dial only selected (permitted) telephone numbers. Use this table when you want to restrict most calls. To allow all users to dial only area code 203, for example, enter 1203 in the Permit Code Table.

  1 + 203 + NNX + nnnn are the only numbers users can dial. (If the same Toll Restriction Class has both Permit and Restrict Code Tables, the system restricts calls that you enter only in the Restrict Code Table. Calls entered in both tables are not restricted.) The system has four tables, with 60 entries (permitted codes) in each table. A permitted code is 12 digits maximum, using 0-9, #, * and FLSH (as a wild card).

Toll Restriction (Cont'd)

- **International Call Restriction**

  International Call Restriction lets you limit the international calls an extension user may dial. You can build a restrict table to prevent only certain calls, or you can build a permit table to allow only certain calls. To allow most international calls, use the International Call Restrict Table. To prevent most international calls, use the International Call Allow Table. The system can have one Inter national Call Restrict table and one International Call Allow table, with up to 10 digits in each table entry. Valid entries are 0-9, #, * and FLSH (for a wild card).

- **Toll Restriction for Abbreviated Dialing**

  You can have abbreviated Dialing bypass or follow Toll Restriction. If you allow many users to program Abbreviated Dialing, you'll probably want to Toll Restrict the numbers they dial. If only administrators can program Abbreviated Dialing, Toll Restriction may not be necessary. You can separately restrict Group and Common Abbreviated Dialing.

- **Local Call Digit Counting**

  Use Local Call Digit Counting to limit the number of digits local callers can dial. You can use this option to prevent users from accessing local dial-up services. For example, set the Maximum Number of Digits in Local Calls to 7 to limit local callers to dialing the Trunk code (NNX) and local address (nnnn) only. You can make four entries for this option. The range is 4-8 digits.

- **Toll Call Digit Counting**

  With Toll Call Digit Counting, you can limit the number of digits long distance callers can dial. This lets you prevent callers from dialing extensively into long distance dial-up services. You can make four entries. The range is 4-30 digits.

- **Toll Free Trunk Lines**

  Certain Trunk Lines can be completely unrestricted, such as the company president's Private Line. Users can place calls a Toll Free Trunk Lines anytime -- to anywhere, without inadvertently being toll restricted.

Toll Restriction (Cont'd)

- **PBX Call Restriction**

  Toll Restriction programming lets you enable/disable PBX Call Restriction and enter PBX access codes. You only need to do this if your system is behind a PBX and you have Trunk Lines programmed for behind PBX operation. Refer to PBX Compatibility feature for the specifics.

- **Transfer Restriction of Non-completed dialing Trunk**

  Transfer Restriction of Non-completed dialing Trunk lets you enable/disable the non-completed dialing trunks an outside caller may transfer. Example, a disabled extension of Transfer of Restriction Completed Trunk have dial "00" restriction. When this extension transfer without dialing or transfer after dial "0", user heard congestion tone (user cannot transfer). When this extension transfer after dial "01", trunk is transferred to another extension.

Conditions

(A) If a Toll Restriction Class has the same entries in both a permit and restriction table, the system does not restrict the call.

(B) Toll Call Digit counting may prevent users from talking advantage of long distance automated services like ACD and automated Technical Service.

Default Setting

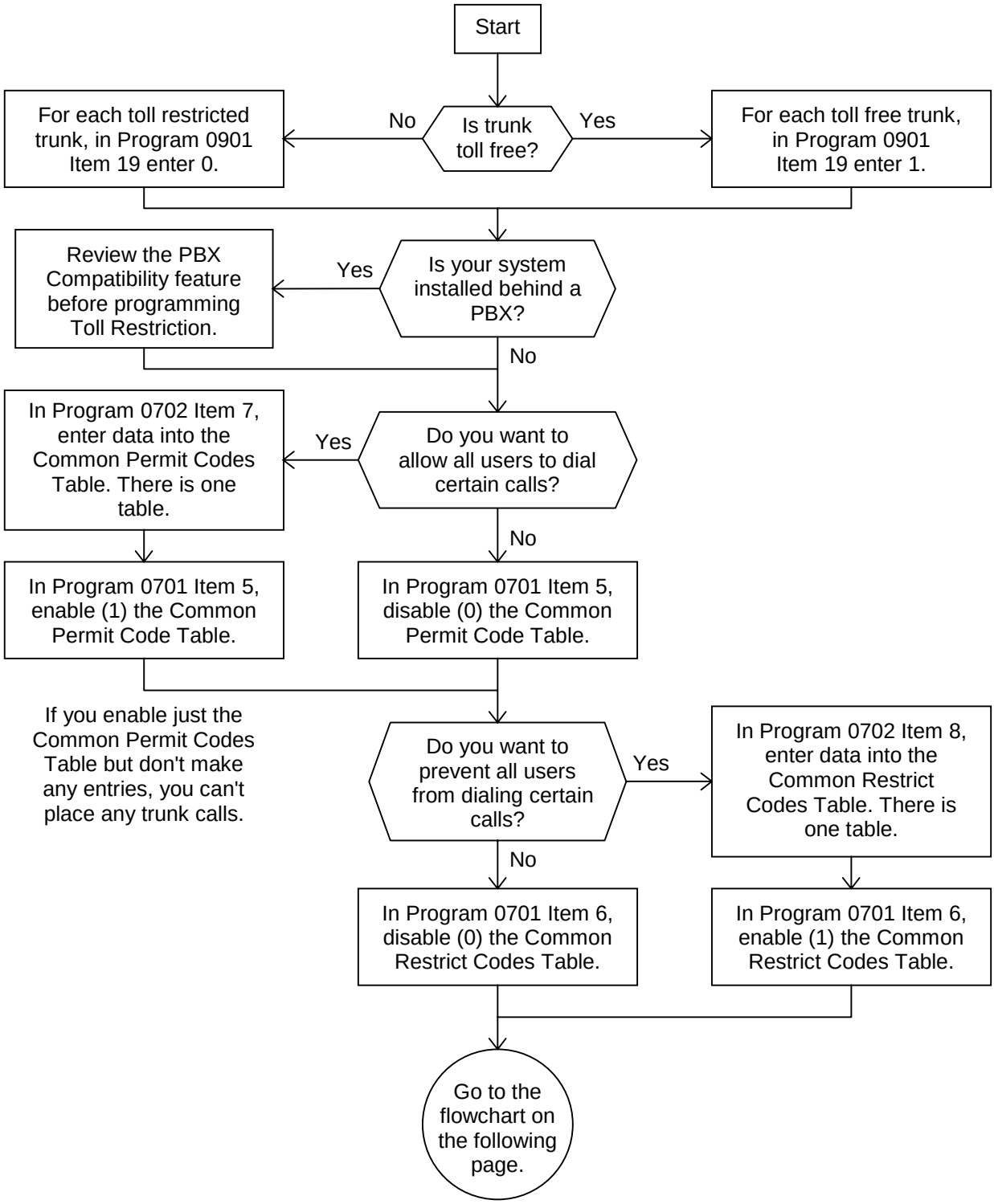
- No Toll Restriction programmed.
- Toll Restriction enforced on all Trunk Lines.

Options

None

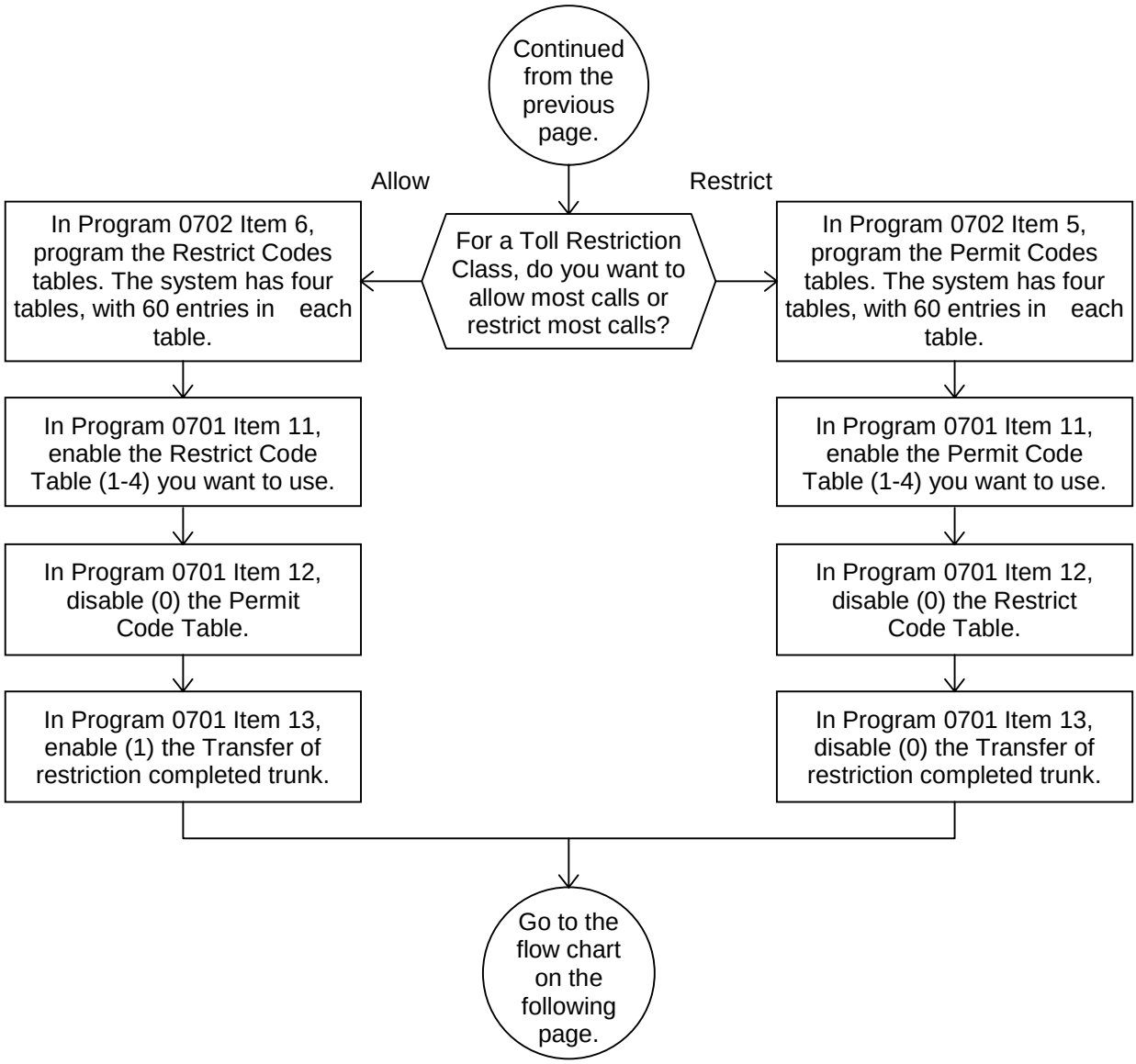
Toll Restriction (Cont'd)

Programming


Start
Is trunk toll free?
No
Yes
For each toll restricted trunk, in Program 0901 Item 19 enter 0.
For each toll free trunk, in Program 0901 Item 19 enter 1.
Is your system installed behind a PBX?
Yes
Review the PBX Compatibility feature before programming Toll Restriction.
No
Do you want to allow all users to dial certain calls?
Yes
In Program 0702 Item 7, enter data into the Common Permit Codes Table. There is one table.
No
In Program 0701 Item 5, enable (1) the Common Permit Code Table.
In Program 0701 Item 5, disable (0) the Common Permit Code Table.
If you enable just the Common Permit Codes Table but don't make any entries, you can't place any trunk calls.
Do you want to prevent all users from dialing certain calls?
Yes
In Program 0702 Item 8, enter data into the Common Restrict Codes Table. There is one table.
No
In Program 0701 Item 6, disable (0) the Common Restrict Codes Table.
In Program 0701 Item 6, enable (1) the Common Restrict Codes Table.
Go to the flowchart on the following page.

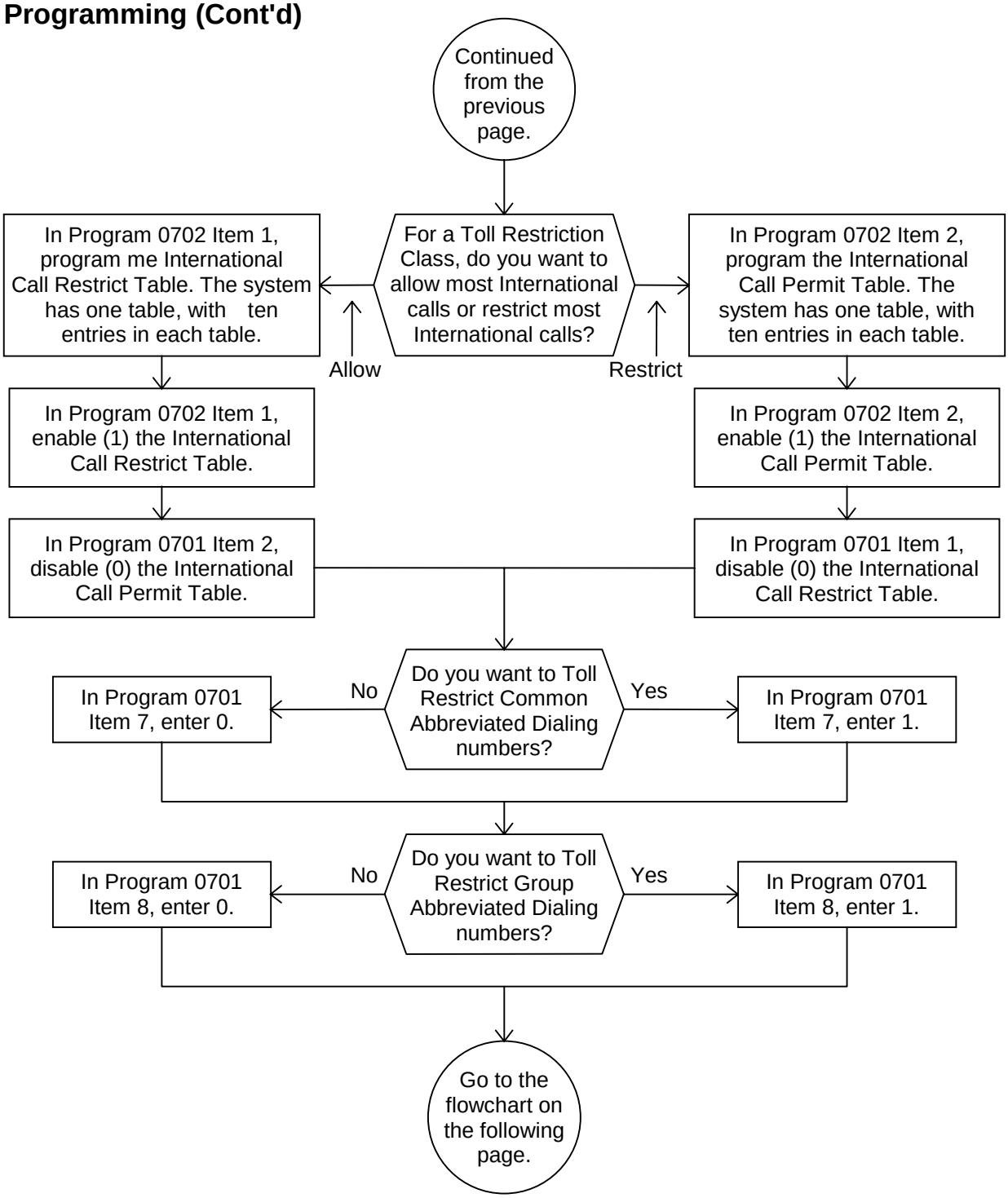
Toll Restriction (Cont'd)

Programming (Cont'd)


Continued from the previous page.
Allow
Restrict
For a Toll Restriction Class, do you want to allow most calls or restrict most calls?
In Program 0702 Item 6, program the Restrict Codes tables. The system has four tables, with 60 entries in each table.
In Program 0701 Item 11, enable the Restrict Code Table (1-4) you want to use.
In Program 0701 Item 12, disable (0) the Permit Code Table.
In Program 0701 Item 13, enable (1) the Transfer of restriction completed trunk.
In Program 0702 Item 5, program the Permit Codes tables. The system has four tables, with 60 entries in each table.
In Program 0701 Item 11, enable the Permit Code Table (1-4) you want to use.
In Program 0701 Item 12, disable (0) the Restrict Code Table.
In Program 0701 Item 13, disable (0) the Transfer of restriction completed trunk.
Go to the flow chart on the following page.

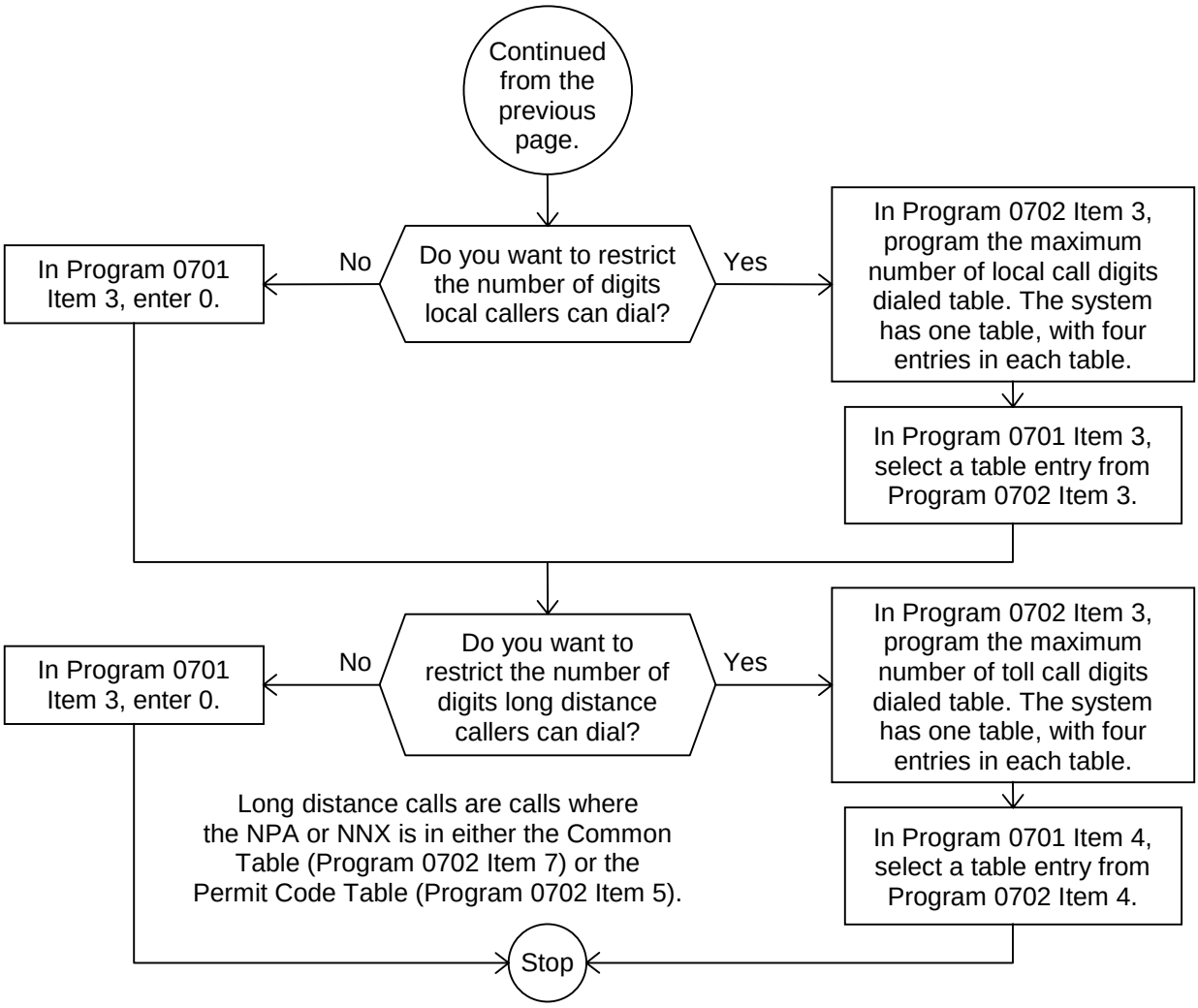
Toll Restriction (Cont'd)

Programming (Cont'd)


Continued from the previous page.
For a Toll Restriction Class, do you want to allow most International calls or restrict most International calls?
Allow
Restrict
In Program 0702 Item 1, program me International Call Restrict Table. The system has one table, with ten entries in each table.
In Program 0702 Item 2, program the International Call Permit Table. The system has one table, with ten entries in each table.
In Program 0702 Item 1, enable (1) the International Call Restrict Table.
In Program 0702 Item 2, enable (1) the International Call Permit Table.
In Program 0701 Item 2, disable (0) the International Call Permit Table.
In Program 0701 Item 1, disable (0) the International Call Restrict Table.
Do you want to Toll Restrict Common Abbreviated Dialing numbers?
No
Yes
In Program 0701 Item 7, enter 0.
In Program 0701 Item 7, enter 1.
Do you want to Toll Restrict Group Abbreviated Dialing numbers?
No
Yes
In Program 0701 Item 8, enter 0.
In Program 0701 Item 8, enter 1.
Go to the flowchart on the following page.

Toll Restriction (Cont'd)

Programming (Cont'd)


Continued from the previous page.
Do you want to restrict the number of digits local callers can dial?
No
Yes
In Program 0701 Item 3, enter 0.
In Program 0702 Item 3, program the maximum number of local call digits dialed table. The system has one table, with four entries in each table.
In Program 0701 Item 3, select a table entry from Program 0702 Item 3.
Do you want to restrict the number of digits long distance callers can dial?
No
Yes
In Program 0701 Item 3, enter 0.
In Program 0702 Item 3, program the maximum number of toll call digits dialed table. The system has one table, with four entries in each table.
In Program 0701 Item 4, select a table entry from Program 0702 Item 4.
Long distance calls are calls where the NPA or NNX is in either the Common Table (Program 0702 Item 7) or the Permit Code Table (Program 0702 Item 5).
Stop

Toll Restriction (Cont'd)

Programming (Cont'd)

> 0701 – Toll Restriction Class, Item 1: International call restriction table
Toll Restriction Class you select, enable (1) or disable (0) the International Call Restrict Table (Program 0702 – Item 1).

> 0701 – Toll Restriction Class, Item 2: International call permit code table
Toll Restriction Class you select, enable (1) or disable (0) the International Call Permit Table (Program 0702 – Item 2).

> 0701 – Toll Restriction Class, Item 3: Dial number length limit for local call
Toll Restriction Class you select, disable (0) or enable the dialing limit for local Calls. When enabling, select from entries 1-4 in Program 0702 Item 3.

> 0701 – Toll Restriction Class, Item 4: Maximum dial number length limit
Toll Restriction Class you select, disable (0) or enable the dialing limit for non-local Calls. When enabling, select from entries 1-4 in Program 0702 Item 4.

> 0701 – Toll Restriction Class, Item 5: Common permit code table
Toll Restriction Class you select, enable (1) or disable (0) the Common Permit Code Table (Program 0702 – Item 7).

> 0701 – Toll Restriction Class, Item 6: Common restriction table
Toll Restriction Class you select, enable (1) or disable the Common Restriction Table (Program 0702 – Item 8).

> 0701 – Toll Restriction Class, Item 7: Restriction for common abbreviated dials
Toll Restriction Class you select, enable (1) or disable (0) Toll Restriction for Common Abbreviated Dialing numbers.

> 0701 – Toll Restriction Class, Item 8: Restriction for group Abbreviated dials
Toll Restriction Class you select, enable (1) or disable (O) Toll Restriction for Group Abbreviated Dialing numbers.

> 0701 – Toll Restriction Class, Item 9: Intercom call restriction
Toll Restriction Class you select, enable (1) or disable (0) Intercom Call Restriction.

Toll Restriction (Cont'd)

Programming (Cont'd)

> 0701 – Toll Restriction Class, Item 10: Restriction of calls within PBX
Toll Restriction Class you select, enable (1) or disable (0) PBX Call Restriction. Refer to the PBX Compatibility Feature.

> 0701 – Toll Restriction Class, Item 11: Permit code table
Toll Restriction Class you select, disable (0) or enable the Permit Code table. When enabling, select from tables 1-4 in Program 0702 Item 5.

> 0701 – Toll Restriction Class, Item 12: Restriction table
Toll Restriction Class you select, disable (0) or enable the Restriction table. When enabling, select from tables 1-4 in Program 0702 Item 6.

> 0702 – Toll Restriction Tables, Item 1: International call restriction table
Enter the international dialing codes you want to restrict.

> 0702 – Toll Restriction Tables, Item 2: International call permit code table
Enter the international dialing codes you want to permit.

> 0702 – Toll Restriction Tables, Item 3: Dial number length limit for local call
Set the maximum number of digits local callers can dial.

> 0702 – Toll Restriction Tables, Item 4: Maximum dial number length limit
Set the maximum number of digits long distance callers can dial.

> 0702 – Toll Restriction Tables, Item 5: Permit code table
Program codes into the Permit Code Tables.

> 0702 – Toll Restriction Tables, Item 6: Restriction table
Program codes into the Restriction Tables.

> 0702 – Toll Restriction Tables, Item 7: Common permit code table
Program codes into the Common Permit Code Tables.

> 0702 – Toll Restriction Tables, Item 8: Common restriction table
Program codes into the Common Restriction Tables.

> 0702 – Toll Restriction Tables, Item 9: Trunk Line access code of PBX (Note 1)
The system can have up to 10 PBX access codes, Refer to the PBX Compatibility feature for the specifics.

> 0901 – Basic Trunk Line Port Setup, Part A Item 19: Restrict
For each Trunk Line, enter 0 to enable Toll Restriction; enter to disable Toll Restriction.

Toll Restriction (Cont'd)

Programming (Cont'd)

> 1004 – Toll Restriction Class for Extension
Assign a Toll Restriction Class for each extension and each Night Service mode.

Related Features

Toll Restriction Override

A user with the proper password can temporarily override an extension's Toll Restriction.

Operation

To place a Trunk Line call if your system is Toll Restricted:

1. Place call normally

   If your Toll Restriction Class does not allow the number you dial, your call will be Cutoff.

Toll Restriction Override

Description

Toll Restriction Override lets a user temporarily bypass an extension's Toll Restriction. This helps a user that must place an important call while at a co-worker's phone. Toll Restriction Override lets the user:

1. Go to a Co-worker's phone.
2. Implement Toll Restriction Override.
3. Place a Trunk Line call the extension normally restricts.

<Note> Station based password must be programmed per a station.

Conditions

This feature available for key telephone and single line telephone.

Default Setting

- Toll Restriction Override password is not setting.

- The Toll Restriction Override Time is 10 seconds.
- Service Code for Toll Restriction Override is dial 875.

Options

None

Programming

> 0405 – System Timers, Item 38: Toll restriction override time
  Set the Toll Restriction Override codes, the system removes Toll Restriction for this interval.

> 1025 – Toll Restriction Override Password Setup
  Set the different password for each extension, user must dial for Toll Restriction override.

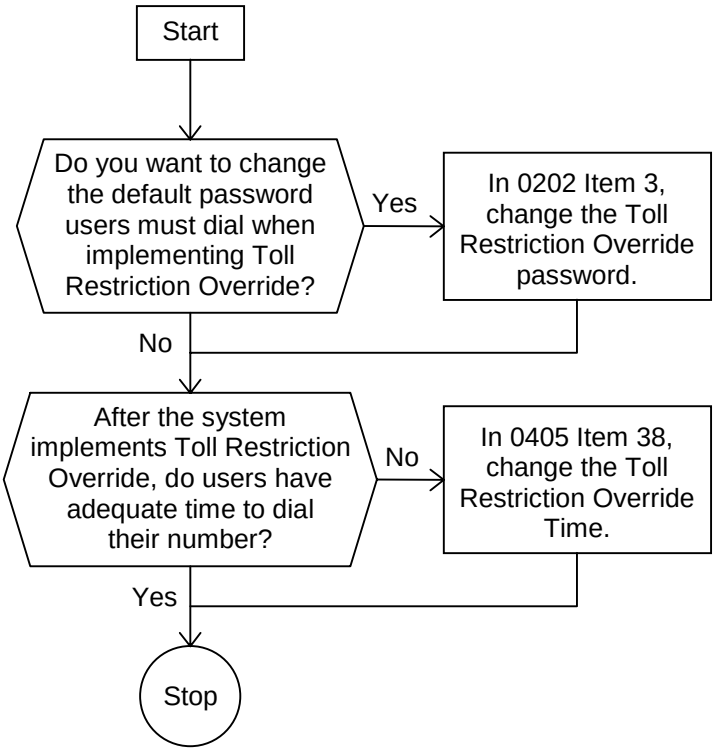
Related Features

Toll Restriction

Toll Restriction Override temporarily overrides an extension's Toll Restriction.

Toll Restriction Override (Cont'd)

Programming (Cont'd)


Start
Do you want to change the default password users must dial when implementing Toll Restriction Override?
Yes
In 0202 Item 3, change the Toll Restriction Override password.
No
After the system implements Toll Restriction Override, do users have adequate time to dial their number?
No
In 0405 Item 38, change the Toll Restriction Override Time.
Yes
Stop

Toll Restriction Override (Cont'd)

Operation

<Key Telephone>

To temporarily override a restricted extension's Toll Restriction:

1. Press idle CL key.
2. Dial 875( ).
3. Dial password (default = 0000).
4. Press idle line key.
5. Dial number without restriction.

<Single Line Telephone>

To temporarily override a restricted extension's Toll Restriction:

1. Off hook.
2. Dial 875( ).
3. Dial password (default = 0000).
4. Dial 9 (Trunk Line Routing Code).
5. Dial number without restriction.

Transfer

Description

Transfer permits an extension user to send (i.e., extend) an active Intercom or outside call to any other extension in the system. With Transfer, any extension user can quickly send a call to the desired co-worker. A call a user transfers automatically recalls if not picked up at the destination extension. This assures that users do not lose or inadvertently abandon their transfers.

For the retrieve operation, the extension user can retrieve the last transferred line by pressing the Trunk Line Key.

The system allows the following types of transfers:

- Screened Transfer – The transferring user announces the call to the destination before hanging up.
- Unscreened Transfer – The transferring party extends the call without an announcement.
- Extension (Department) Groups Transfer – The transferring party sends the call to a Department instead of an extension.
- Transfer Without Holding – A user presses a busy line key and waits for the call to complete. The system automatically sends them the call when the internal caller hangs up.

Conditions

This feature is available for key telephone and single line telephone.

The retrieve feature is available only for Key Telephone.

Default Setting

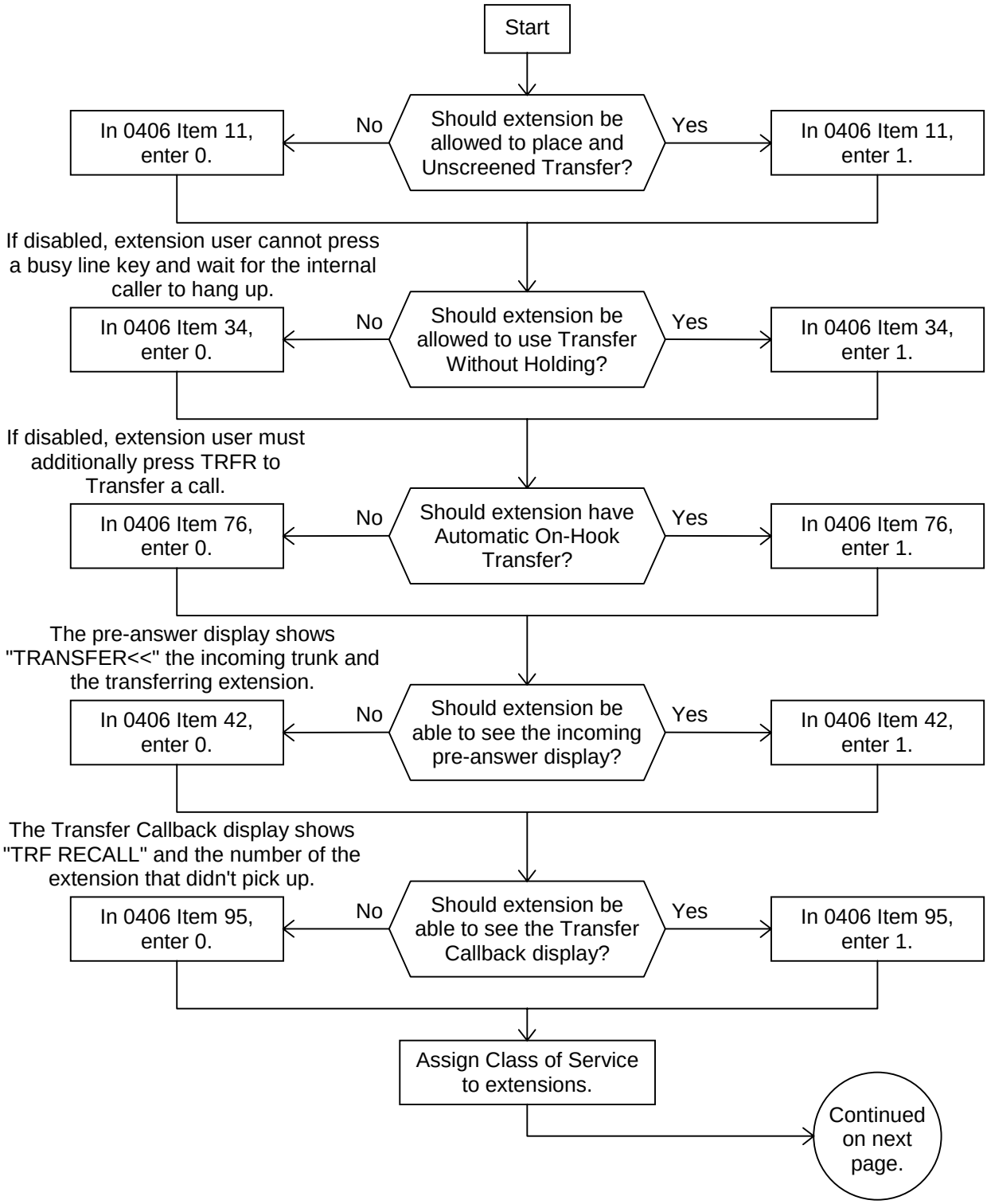
- The Transfer Recall Time is 10 seconds.
- An extension's Class of Service enables Unscreened Transfer.
- An extension's Class of Service disables Transfer Without Holding.
- An extension's Class of Service enables the Transfer pre-answer display.
- An extension's Class of Service enables Live Transfer.
- The retrieve feature is not assigned.

Options

None

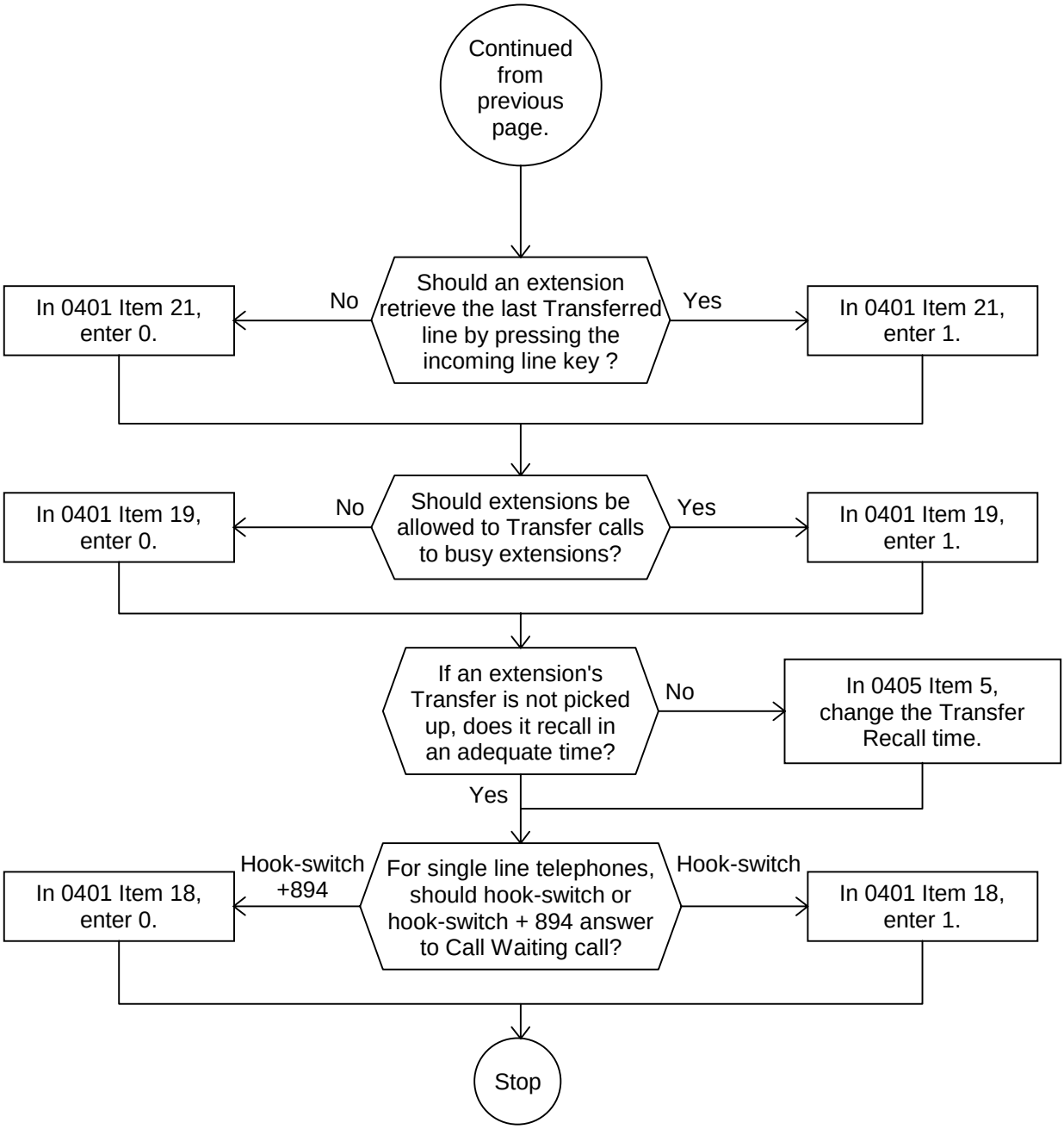
Transfer (Cont'd)

Programming


Start
Should extension be allowed to place and Unscreened Transfer?
No
In 0406 Item 11, enter 0.
Yes
In 0406 Item 11, enter 1.
If disabled, extension user cannot press a busy line key and wait for the internal caller to hang up.
Should extension be allowed to use Transfer Without Holding?
No
In 0406 Item 34, enter 0.
Yes
In 0406 Item 34, enter 1.
If disabled, extension user must additionally press TRFR to Transfer a call.
Should extension have Automatic On-Hook Transfer?
No
In 0406 Item 76, enter 0.
Yes
In 0406 Item 76, enter 1.
The pre-answer display shows "TRANSFER<<" the incoming trunk and the transferring extension.
Should extension be able to see the incoming pre-answer display?
No
In 0406 Item 42, enter 0.
Yes
In 0406 Item 42, enter 1.
The Transfer Callback display shows "TRF RECALL" and the number of the extension that didn't pick up.
Should extension be able to see the Transfer Callback display?
No
In 0406 Item 95, enter 0.
Yes
In 0406 Item 95, enter 1.
Assign Class of Service to extensions.
Continued on next page.

Transfer (Cont'd)

Programming (Cont'd)


Continued from previous page.
Should an extension retrieve the last Transferred line by pressing the incoming line key ?
No
In 0401 Item 21, enter 0.
Yes
In 0401 Item 21, enter 1.
Should extensions be allowed to Transfer calls to busy extensions?
No
In 0401 Item 19, enter 0.
Yes
In 0401 Item 19, enter 1.
If an extension's Transfer is not picked up, does it recall in an adequate time?
No
In 0405 Item 5, change the Transfer Recall time.
Yes
For single line telephones, should hook-switch or hook-switch + 894 answer to Call Waiting call?
Hook-switch +894
In 0401 Item 18, enter 0.
Hook-switch
In 0401 Item 18, enter 1.
Stop

Transfer (Cont'd)

Programming (Cont'd)

> 0401 – System Options, Part A, Item 18: Call waiting answer method
For a busy single line telephones, set the mode used to answer an override (call waiting) call:
0 = Press and release hook-switch to pick up waiting call
1 = Press and release hook-switch and dial Service Code 894 to answer waiting call

> 0401 – System Options, Part A, Item 19: Transfer to busy extension
Prevent (0) or allow (1) extensions to transfer calls to busy extensions. If disabled, calls transferred to busy extensions recall immediately.

> 0401 – System Options, Part A, Item 21: Retrieve the transferred line (Line key)
Assign enable (1) or disable (0) to retrieve the last transferred Trunk line by pressing the incoming Trunk Line Key.

> 0405 – System Timers, Item 5: Ring inward recall timer
Set the Transfer Recall Time (0-64800 seconds). An unanswered transferred call recalls to the extension that initially transferred it after this interval.

> 0406 – COS Options, Item 11: Ring inward transfer
In an extension's Class of Service, enable (1) or disable (0) the extension's ability to use Unanswered Transfer.

> 0406 – COS Options, Item 34: Transfer without holding
In an extension's Class of Service, enable (1) or disable (0) the extension's ability to use Transfer Without Holding.

> 0406 – COS Options, Item 42: Transfer information display
In an extension's Class of Service, enable (1) or disable (0) the extension's incoming Transfer pre-answer display.

> 0406 – COS Options, Item 76: Automatic on hook transfer
In an extension's Class of Service, enable (1) or disable (0) the extension's ability to use Automatic On Hook Transfer. If enabled, user must Press HOLD, dial the extension number and then TRFR to transfer the call.

> 1005 – Class of Service for Extension
Assign a Class of Service (1-10) to an extension.

Transfer (Cont'd)

Related Features

One-Touch Dialing

When transferring, an extension user can press a One-Touch key instead of dialing the extension number.

Series Call

Series Call is method of transferring a call so it automatically returns to the transferring extension.

Operation

> Transferring Trunk Line Calls

To Transfer a Trunk Line call to a co-worker's extension:

1. Press HOLD.

   You hear transfer dial tone.
2. Dial co-worker's extension number.

   If you have Automatic On Hook Transfer and the extension you call is busy, pressing TRFR returns you to the call.

   If the extension doesn't answer, you can dial another extension number or press CL to return to the call.
3. Announce call and hang up.

   If you don't have Automatic On Hook Transfer, you must press TRFR to Transfer the call.

   If your co-worker doesn't want to screen the call, hang up without making an announcement.

To answer a call transferred to your extension:

1. Lift the handset when a co-worker announces the call.

> Transferring to Extension Groups

To Transfer your Trunk Line call to an Extension Group:

1. Press HOLD.
2. Press Internal Group Paging key (PGM 1006 or SC 851: 1006).

   OR

   Dial 801( ) and the Extension Group number (1-8)
3. Announce call.
4. Hang up when Extension Group user answers your announcement.

   The answering party connects to the Trunk Line call when you hang up.

Transfer (Cont'd)

Operation (Cont'd)

> Transferring Trunk Line Calls (Cont'd)

To pick up a call transferred to an Extension Group Pickup key (PGM 1006 or SC851: 1010):

The phone you use must be in the group paged.

1. Press idle CL key.
2. Press Extension Group Pickup key (PCM 1006 or SC 851: 1010).

   OR

   Dial 863( ).
3. Respond to the announcement.

   You connect to the Trunk Line when the announcing party hangs up.

Transferring Without Holding

1. Lift handset.
2. Press busy line key.
3. When original caller hangs up, you are connected.

To retrieve the transferred Trunk Line

1. Press idle CL key or lift handset.
2. Press the last transferred Trunk line key (green flashing).

> Transferring intercom Calls

1. Press HOLD.
2. Dial extension to receive your call.
3. Announce your call and hang up.

   If the called party lifts the handset to answer your announcement, they automatically connect to the Transferred call when you hang up.

   If the called party answers Handsfree, the transferred Intercom call rings their phone when you hang up.

   If the called party doesn't want the call, press you illuminated CL key to retrieve it.

Trunk Incoming Call

Description

The system provides flexible routing of incoming Trunk Line calls to meet the exact site requirements. This lets trunk calls ring and be answered at any combination of system extensions.

The Ring groups assigned to each extension can access for incoming calls.

Ring Groups determine how Trunk Lines ring extensions. Generally, Trunk Line ring extension's only if Ring Group programming allows. For example, to make a Trunk Line ring an extension:

- Assign the Trunk Line and the extension to the same Ring Group
- In the extension's Ring Group programming, assign ringing for the Trunk Line.

The system allows up to 16 Ring Groups, and any number of extensions and Trunk Lines can be in a specific group. Extensions and Trunk Lines can be in only one Ring Group at a time.

If an extension has a line key for the Trunk Line, Ring Group calls ring the line key. If the extension doesn't have a line key, the Trunk Line rings the line appearance key. If an extension has a key for a Trunk Line that is not in its ring group, the Trunk Line follows Access Map programming.

Incoming Trunk Access

An extension user can answer an incoming call on a specific Ring line group. The ring line groups assigned to each extension can access for incoming calls and audible assignments (Day/Night/Midnight/Rest) for the extensions.

Ringing/Recall Trunk Off-Hook Access

Ringing/Recall Trunk Off-Hook Access allows a ringing incoming call or recalling line to be answered by just lifting the handset.

Trunk Off-Hook Signaling

Trunk Off-Hook Signaling allows an extension user with an audible indication of an incoming Trunk call while already on a call ; the busy extension user hears muted ringing if on a handset call or one short burst tones if on a Handsfree call.

Conditions

This feature available for key telephone and single line telephone.

Trunk Incoming Call (Cont'd)

Default Setting

- Pre-ringing for outside calls enabled.
- Ring No Answer Alarm interval is 60 seconds.
- All trunks have normal ringing.
- All extensions and trunk are in Ring Group 1. Extension 200 rings for trunk calls - all other extension's only flash.
- All extension use Access Map 1. In Access Map 1, all trunks have incoming access, outgoing access and access when on Hold.
- All function keys are line keys (key 1 = trunk 1, etc.).
- Auto answer to incoming trunk line call is enabled.

Options

None

Programming

> 0306 – Pre-ringing Enable
Enable (1) or disable (0) pre-ringing for outside calls.

> 0401 – System Options, Part A
Item 13: Auto answer to incoming Trunk line call

> 0405 – System Timers, Item 7: Incoming ring no answer alarm
Set the Ring no Answer Alarm interval (0-64800 seconds). If a trunk rings a keyset longer than this interval, the system changes the ring cadence.

> 0901 – Basic Trunk Line Port Setup, Part A Item 2: Incoming Type
For each Trunk Line, enable delayed ringing (0) or immediate ringing (1).

> 0909 – Extension Ring Group Assignment
To have Trunk Line ring extensions, assign extensions to ring groups (1-16). For each extension in the Ring Group, indicate if Trunk Line should ring or not ring.

> 0910 – Trunk Line Ring Group Assignment
To have the Trunk Line ring extensions, assign Trunk Line to Ring Group.

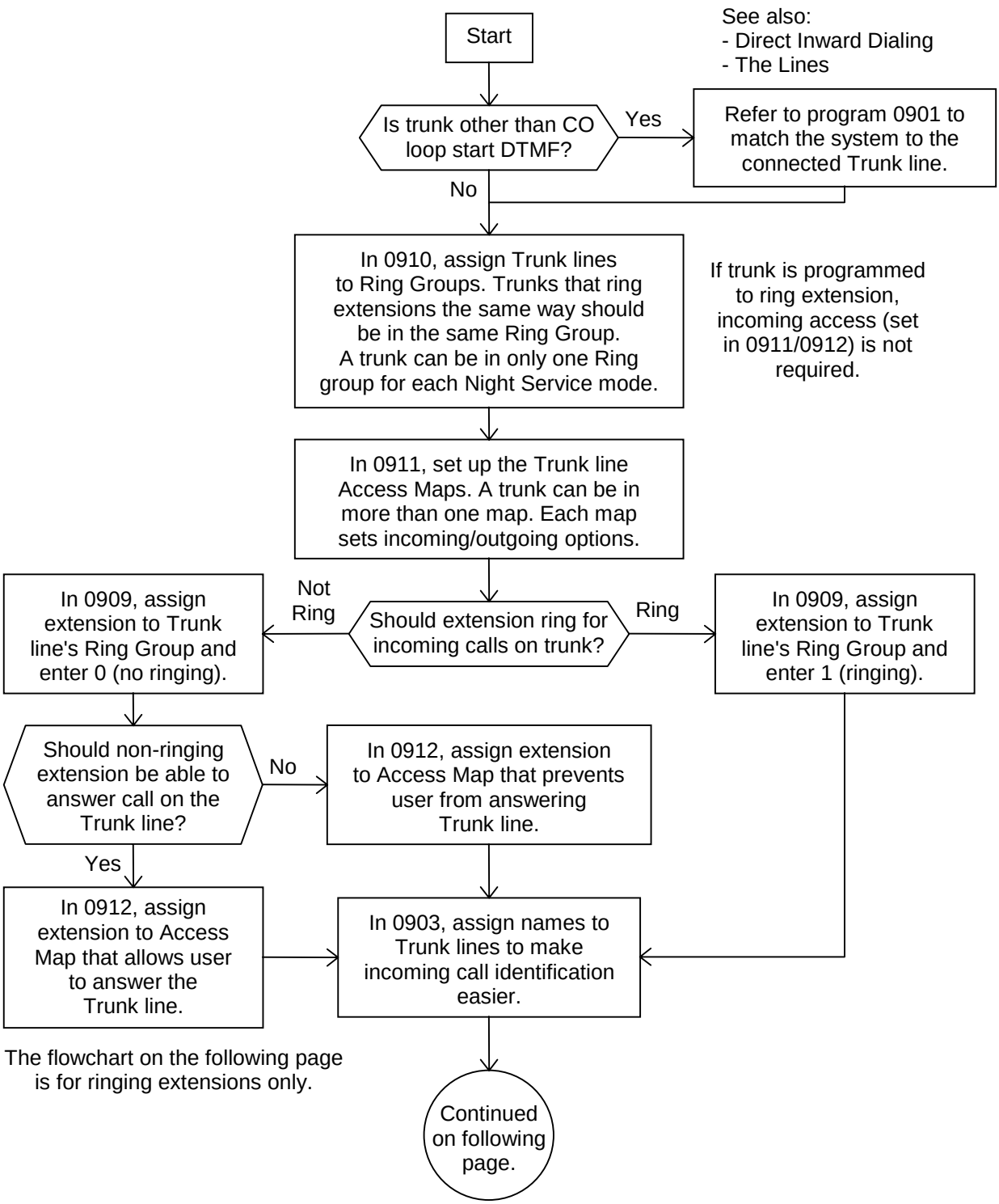
> 0911 – Trunk Line Access Map setup
Set up the Trunk Line Access Maps (1-16). This sets the access options for Trunk Line. None that Ring Group programming overrides Access Map programming.

> 0912 – Extension Access Map Assignment
Assign Trunk Access Maps (1-16) to extensions.

> 1006 – Programming Function Keys
To simplify answering, assign Trunk Line to function keys.

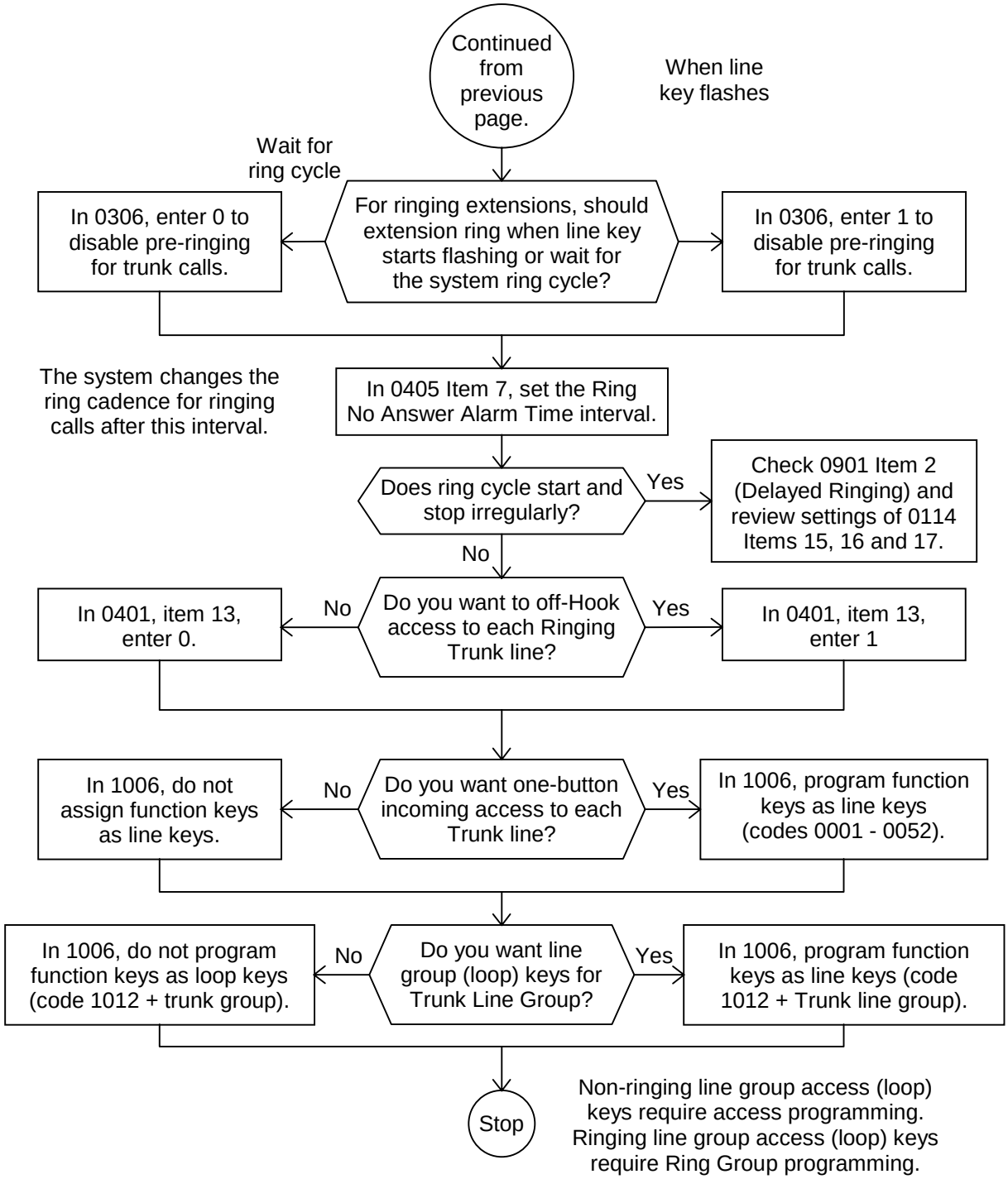
Trunk Incoming Call (Cont’d)

Programming (Cont'd)


Start
See also:
- Direct Inward Dialing
- The Lines
Is trunk other than CO loop start DTMF?
Yes
Refer to program 0901 to match the system to the connected Trunk line.
No
In 0910, assign Trunk lines to Ring Groups. Trunks that ring extensions the same way should be in the same Ring Group. A trunk can be in only one Ring group for each Night Service mode.
If trunk is programmed to ring extension, incoming access (set in 0911/0912) is not required.
In 0911, set up the Trunk line Access Maps. A trunk can be in more than one map. Each map sets incoming/outgoing options.
Should extension ring for incoming calls on trunk?
Not Ring
Ring
In 0909, assign extension to Trunk line's Ring Group and enter 0 (no ringing).
In 0909, assign extension to Trunk line's Ring Group and enter 1 (ringing).
Should non-ringing extension be able to answer call on the Trunk line?
No
Yes
In 0912, assign extension to Access Map that prevents user from answering Trunk line.
In 0912, assign extension to Access Map that allows user to answer the Trunk line.
In 0903, assign names to Trunk lines to make incoming call identification easier.
The flowchart on the following page is for ringing extensions only.
Continued on following page.

Trunk Incoming Call (Cont'd)

Programming (Cont'd)


Continued from previous page.
When line key flashes
Wait for ring cycle
For ringing extensions, should extension ring when line key starts flashing or wait for the system ring cycle?
In 0306, enter 0 to disable pre-ringing for trunk calls.
In 0306, enter 1 to disable pre-ringing for trunk calls.
The system changes the ring cadence for ringing calls after this interval.
In 0405 Item 7, set the Ring No Answer Alarm Time interval.
Does ring cycle start and stop irregularly?
Yes
Check 0901 Item 2 (Delayed Ringing) and review settings of 0114 Items 15, 16 and 17.
No
Do you want to off-Hook access to each Ringing Trunk line?
No
In 0401, item 13, enter 0.
Yes
In 0401, item 13, enter 1
Do you want one-button incoming access to each Trunk line?
No
In 1006, do not assign function keys as line keys.
Yes
In 1006, program function keys as line keys (codes 0001 - 0052).
Do you want line group (loop) keys for Trunk Line Group?
No
In 1006, do not program function keys as loop keys (code 1012 + trunk group).
Yes
In 1006, program function keys as line keys (code 1012 + Trunk line group).
Stop
Non-ringing line group access (loop) keys require access programming.
Ringing line group access (loop) keys require Ring Group programming.

Trunk Incoming Call (Cont'd)

Programming (Cont'd)

> Note:
For incoming calls, Ring Group programming (0909/0910) overrides Access Map programming (0911/0912)

Use the charts below to program the following example:

For this extension...*			
200	Line 1 rings	Line 2 flashes	Line 3 flashes
201	Line 1 flashes	Line 2 rings	Line 3 flashes
202	Line 1 flashes	Line 2 flashes	Line 3 rings

*: Trunk line ring the same in the day as at night.

Program 0910 - Trunk Line Ring Group Assignment			
Ring Group*>	1	2	3
Line 1	X	—	—
Line 2	—	X	—
Line 3	—	—	X
X = Trunk Line assigned to indicated Ring Group			
* = Make the same 0910 entry for all Night modes.			

Program 0909 – Extension Ring Group Assignment			
Ring Group*>	1	2	3
EXT. 200	1	0*	0*
EXT. 201	0*	1	0*
EXT. 202	0*	0*	0*
1 = Extension rings 0 = Extension doesn't ring			
* = To allow extension user to answer flashing line, be sure to give extension incoming access to the Trunk line program 0911 and 0912.			

Trunk Incoming Call (Cont'd)

Related Features

Direct Inward Line

Direct inward Lines ring an extension directly, without Ring Group or Access Map programming.

Programmable Function Key

Line keys and Trunk Line Group keys simplify answering outside calls.

Night Service

Ring Group programming can be different for each Night Service mode.

Operation

<Key Telephone>

To answer an incoming Trunk Line Call:

1. Lift handset.
2. Press flashing line key.

   If you don't have a line for a Trunk Line call ringing your phone, it rings an idle CL key.

   If you have Ringing Line Preference, lifting the handset answers the call.

   If you have Auto Answer to incoming call from Trunk line, you automatically answer to ringing Trunk line without press flashing line key.

<Single Line Telephone>

To answer an incoming Trunk Line Call:

1. Lift handset.
   (Automatic answer to ringing Trunk line.)

Trunk Line Group

Description

Trunk Line Group let you optimize Trunk Line usage for incoming and outgoing calls. With Trunk Line Group, users can have loop (rotary) keys for Trunk Line calls. Incoming Trunk Line group calls ring these loop keys. For outgoing calls, the user presses a loop key to access the first available Trunk Line within the group. You set the access order in Trunk Line group programming. The system allows 16 Trunk Line Group.

Loop keys give an extension user more available function keys, since the user doesn't need a separate line key for each Trunk Line. The user only needs one loop key for each Trunk Line group.

Like Trunk Line Group Routing, Trunk Line Group help you to minimize the expense of toll calls.

Conditions

None

Default Setting

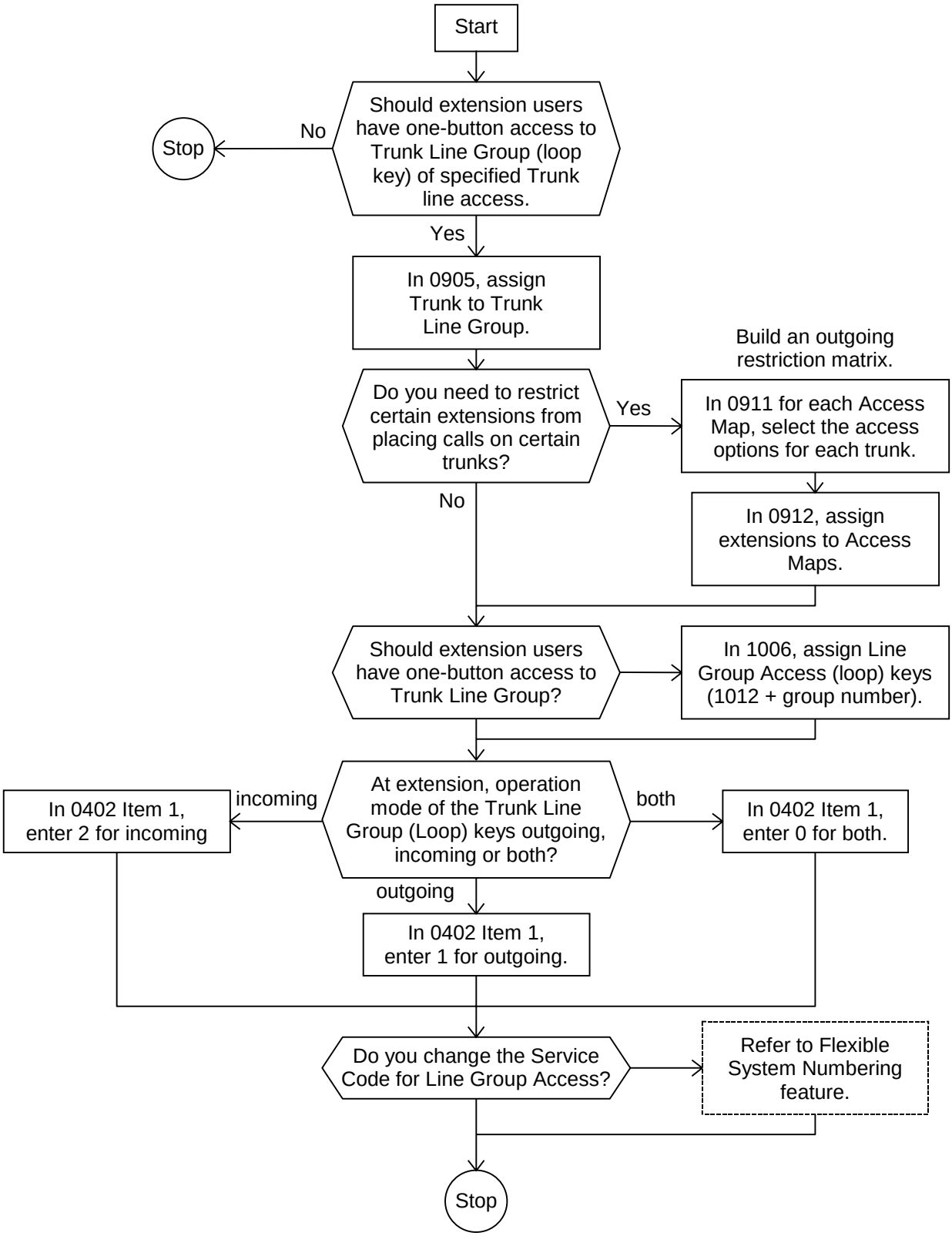
- Trunk Line group keys set for incoming and outgoing access.
- All Trunk Lines assigned to Trunk Line group 1.
- All Trunk Lines and extensions use access map 1.
- No Trunk Line group access key assigned.
- Service Code for Line Group Access is dial 804.

Options

None

Trunk Line Group (Cont'd)

Programming


Start
Should extension users have one-button access to Trunk Line Group (loop key) of specified Trunk line access.
No
Stop
Yes
In 0905, assign Trunk to Trunk Line Group.
Build an outgoing restriction matrix.
Do you need to restrict certain extensions from placing calls on certain trunks?
Yes
In 0911 for each Access Map, select the access options for each trunk.
In 0912, assign extensions to Access Maps.
No
Should extension users have one-button access to Trunk Line Group?
In 1006, assign Line Group Access (loop) keys (1012 + group number).
At extension, operation mode of the Trunk Line Group (Loop) keys outgoing, incoming or both?
incoming
In 0402 Item 1, enter 2 for incoming
both
In 0402 Item 1, enter 0 for both.
outgoing
In 0402 Item 1, enter 1 for outgoing.
Do you change the Service Code for Line Group Access?
Refer to Flexible System Numbering feature.
Stop

Trunk Line Group (Cont'd)

Programming (Cont'd)

> 0402 – System Options, Part B, Item 1: Line group access key operation mode
Set the operating mode of the extension's Trunk Line group keys
(Incoming and Outgoing Access = 0, Outgoing = 1, Incoming = 2).

> 0511 – Service Code Setup, Part A, Item 28: Line group access
Assign a service code for line group access.

> 0905 – Trunk Line Group
Assign Trunk Lines to Trunk Line Group (1-16).

> 0911 – Trunk Line Access Map Setup
Assign Trunk Lines to access maps (1-16).

> 0912 – Extension Access Map Assignment
Assign access maps (1-16) to extensions.

> 1006 – Programming Function Keys
Assign function keys for Trunk Line group access (code 1012).

Related Features

Trunk Outgoing Call

Instead of using Trunk Line Group, an extension user can place a Trunk Line call by:

- Pressing a line key
- Dialing a Trunk Line access code
- Dialing a Trunk Line Group Routing code (9) – refer to the Trunk Line Group Routing feature

Ring Groups

Trunk Lines ring extensions according to Ring Group programming.

Trunk Line Group (Cont'd)

Operation

<Key Telephone>

To place a call over a Trunk Line group:

1. Press idle CL key.
2. Dial 804( ).
3. Dial line group number (1-9 or 01-16).
4. Dial number.

OR

1. Press Trunk Line group key (PGM 1006 or SC 851: 1012).
2. Dial number.

To answer an incoming Trunk Line group call:

1. Lift handset.
2. Press flashing Trunk Line group key.

<Single Line Telephone>

To place a call over a Trunk Line group:

1. Off hook.
2. Dial 804( ).
3. Dial line group number (1-9 or 01-16).
4. Dial number.

To answer an incoming Trunk Line group call:

1. Off hook.

Trunk Outgoing Call

Description

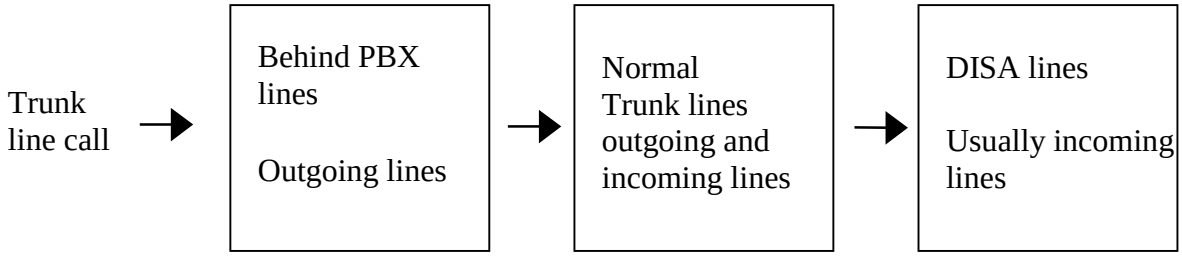
The system provides flexibility in the way each extension user can place outgoing trunk calls. This lets you customize the call placing options to meet site requirements and each individual's needs. A user can place a call by:

- Pressing a line key
- Dialing a Specified Trunk Line Access Service Code
- Pressing a Trunk Group Access key
- Dialing a Trunk Line Group Access Service Code
- Pressing an Outgoing Line Access key
- Dialing a Trunk Line Group Routing Code
- Dialing an Individual Trunk Line Group Routing Code
- Off hook automatic Trunk Line Group Routing access.

Individual Trunk Line Group Routing sets different outbound call routing options for each extension user that dial Individual Trunk Line Group Routing code for Trunk Line calls.

Individual Trunk Line Group Routing routes calls in the order specified by system programming. If a user dials Individual Trunk Line Group Routing code and all calls in the first group are busy, the system may route the calls to another group. When you're setting up your system, Individual Trunk Line Group Routing will help you minimize the expense of toll calls. For example, if your system has normal Trunk lines, behind PBX lines, DISA lines, use Individual Trunk Line Group Routing to route calls to the behind PBX lines first.

Route 1



Individual Trunk Line Group Routing can be given different Trunk Line Group Routing for each extension. If your system gives different route of Trunk Line Group Routing for every extension, each Trunk line will have similar toll.

Conditions

This feature available for key telephone and single line telephone.

Trunk Outgoing Call (Cont’d)

Default Setting

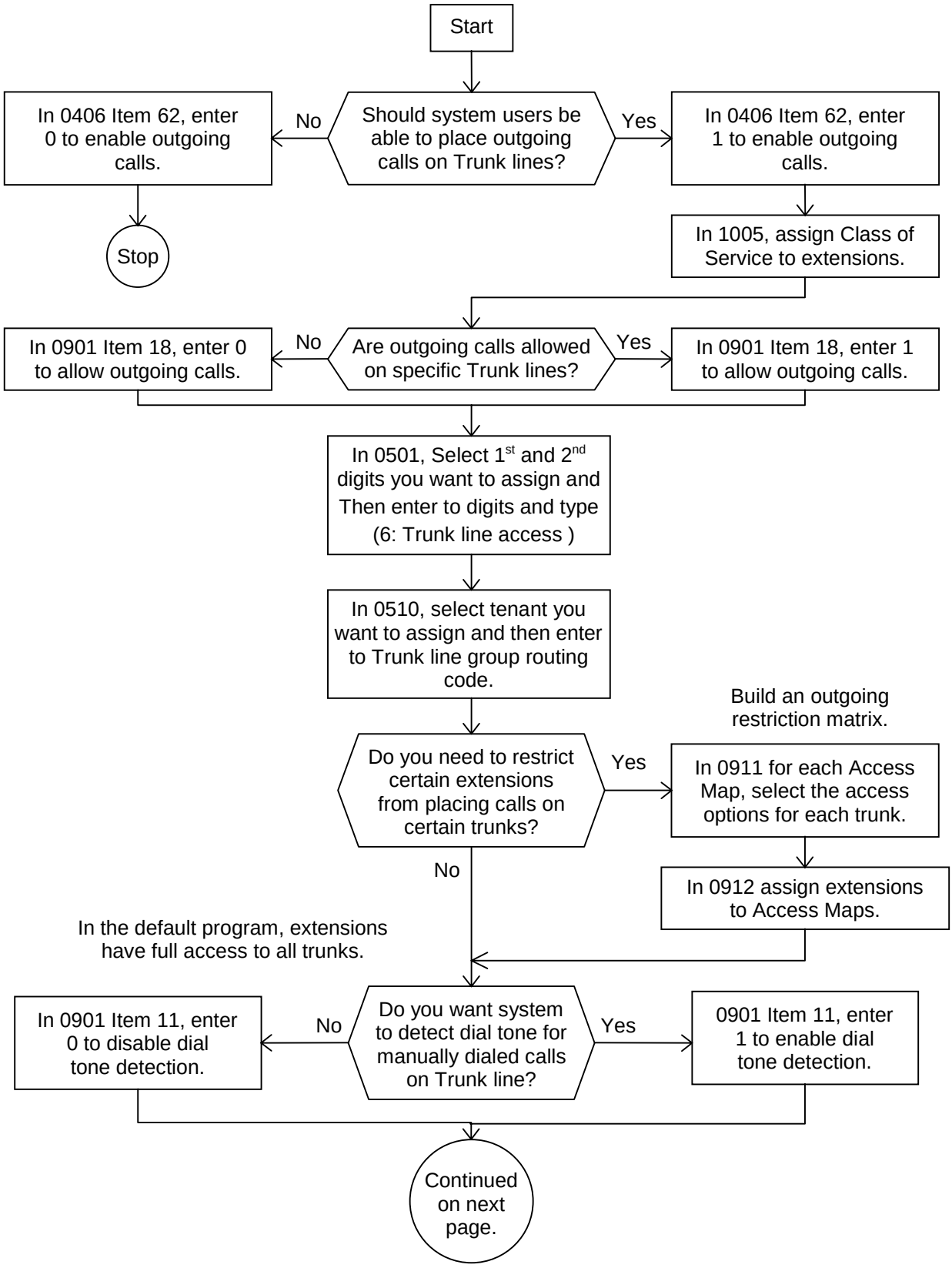
- Preselection interval is 5 seconds.
- An extension's Class of Service enables Trunk line calls.
- All Trunk lines allow outgoing calls.
- Trunk 1 is named LINE 001, trunk 2 is named LINE 002, etc.
- All extensions uses Access Map 1, all trunks have incoming access, outgoing access and access when on Hold.
- All function keys are line keys (key 1 = trunk 1, etc.).
- Off hook automatic Trunk Line Group Routing access is no setting.
- Service Code of Specified Trunk Line Access is dial 805.
- Service Code of Trunk Line Group Access is dial 804.
- Trunk Line Group Routing code is Dial 9.
- Individual Trunk Line Group Routing code is no setting.
- All extension has no route for the Individual Trunk line Group Routing.

Options

None

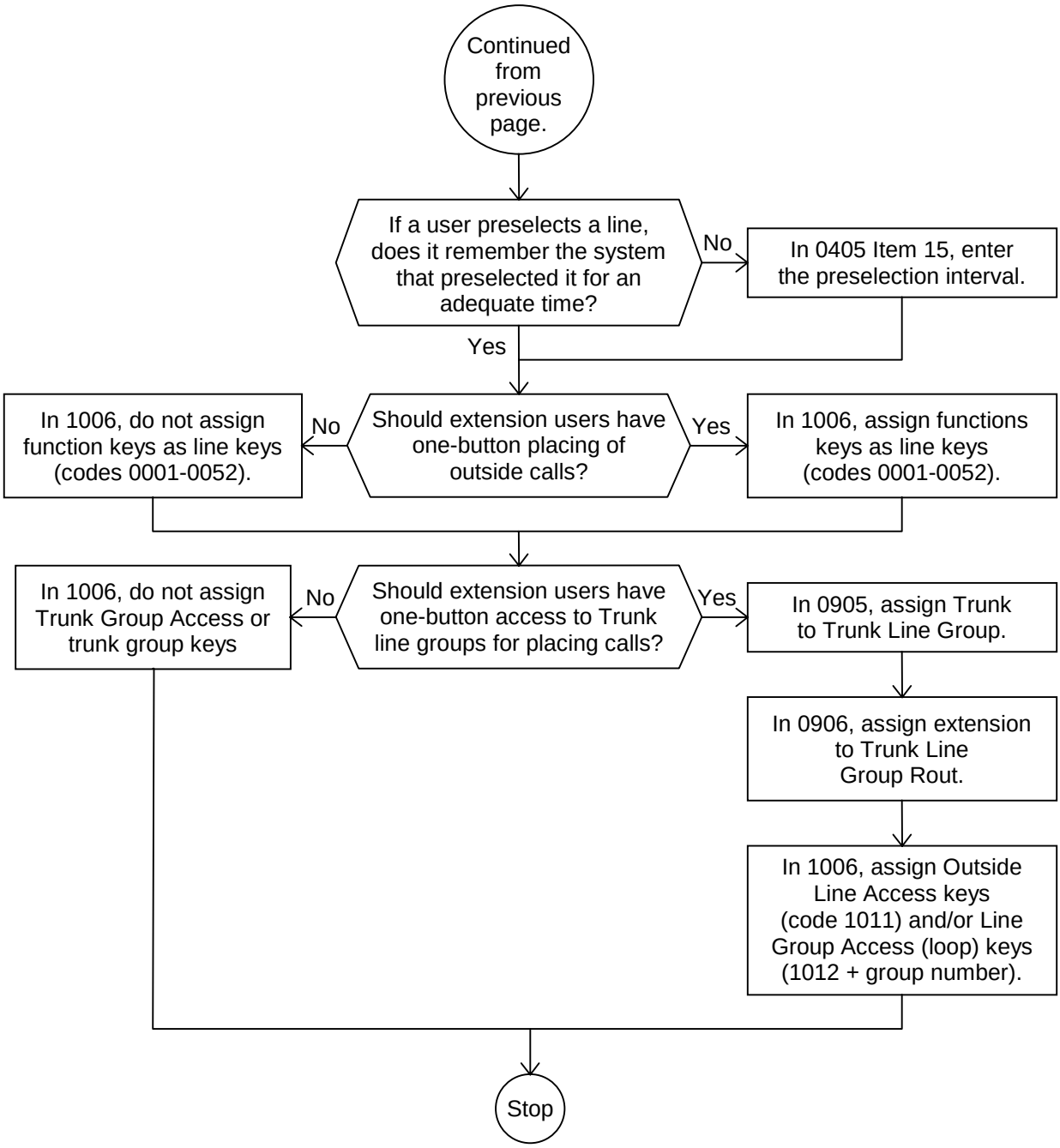
Trunk Outgoing Call (Cont'd)

Programming


Start
Should system users be able to place outgoing calls on Trunk lines?
No
Yes
In 0406 Item 62, enter 0 to enable outgoing calls.
In 0406 Item 62, enter 1 to enable outgoing calls.
Stop
In 1005, assign Class of Service to extensions.
Are outgoing calls allowed on specific Trunk lines?
No
Yes
In 0901 Item 18, enter 0 to allow outgoing calls.
In 0901 Item 18, enter 1 to allow outgoing calls.
In 0501, Select 1st and 2nd digits you want to assign and Then enter to digits and type (6: Trunk line access)
In 0510, select tenant you want to assign and then enter to Trunk line group routing code.
Build an outgoing restriction matrix.
Do you need to restrict certain extensions from placing calls on certain trunks?
Yes
In 0911 for each Access Map, select the access options for each trunk.
No
In 0912 assign extensions to Access Maps.
In the default program, extensions have full access to all trunks.
Do you want system to detect dial tone for manually dialed calls on Trunk line?
No
Yes
In 0901 Item 11, enter 0 to disable dial tone detection.
0901 Item 11, enter 1 to enable dial tone detection.
Continued on next page.

Trunk Outgoing Call (Cont'd)

Programming (Cont'd)


Continued from previous page.
If a user preselects a line, does it remember the system that preselected it for an adequate time?
No
In 0405 Item 15, enter the preselection interval.
Yes
In 1006, do not assign function keys as line keys (codes 0001-0052).
No
Should extension users have one-button placing of outside calls?
Yes
In 1006, assign functions keys as line keys (codes 0001-0052).
In 1006, do not assign Trunk Group Access or trunk group keys
No
Should extension users have one-button access to Trunk line groups for placing calls?
Yes
In 0905, assign Trunk to Trunk Line Group.
In 0906, assign extension to Trunk Line Group Rout.
In 1006, assign Outside Line Access keys (code 1011) and/or Line Group Access (loop) keys (1012 + group number).
Stop

Trunk Outgoing Call (Cont'd)

Programming (Cont'd)

> 0405 – System Timers, Item 15: Pre-selection time
Set the pre-selection interval (0-64800 seconds). When a keyset user preselects a line key, the system remembers the pre-selection for this interval.

> 0406 – COS Options, Item 62: Trunk Line outgoing
In an extension's Class of Service, enables Trunk Line calling.

> 0511 – Service Code Setup, Part A Item 28: Trunk line group access
Assign a Service Code for Trunk line group access.

> 0511 – Service Code Setup, Part A Item 67: Specified Trunk line access
Assign a Service Code for specified Trunk line access.

> 0901 – Basic Trunk Line Port Setup, Part A
Item 11: DTD after line seize in manual dial mode
Enable (1) or disable (0) dial tone detection for manually dialed Trunk line calls.

> 0901 – Basic Trunk Line Port Setup, Part A Item 18: Outgoing
For each Trunk Line, allow (1) or prevent (0) outgoing calls.

> 0903 – Trunk Line Names
To make identifying calls easier, assign a name to each Trunk Line.

> 0905 – Trunk Line Group
Assign Trunk line to Trunk Line Group and set the priority assignment.

> 0906 – Trunk Line Group Routing (Dial 9)
Set up an outbound routing table (1-36) for Trunk Line Group assigned in Program 0905.

> 0907 – Trunk Line Group Routing for Extension
Assign the routes set in Program 0906 to extensions.

> 0911 – Trunk Line Access Map Setup
Set up the Trunk Access Maps (1-16). This sets the access options for Trunk lines.

> 0912 – Extension Access Map Assignment
Assign Trunk Line Access Maps (1-16) to extensions.

> 1005 – Class of Service for Extension
Assign a Class of Service (1-10) to an extension.

Trunk Outgoing Call (Cont'd)

Programming (Cont'd)

> 1006 – Programming Function Keys
To simplify placing calls, assign function keys for placing Trunk Line calls: Line keys (code 0001-0052), Trunk Line Group Access (code 1011) and Trunk Line Group (code 1012).

> 1008 – Basic Extension Port Setup (Part B), Item 3: Auto Trunk line Seize
For each extension, enabled (1) or disabled (0) Automatic Trunk Line Group Seize.

Related Features

Alphanumeric Display/Call Timer

If the Trunk Line name seize display is enabled in programming (Program 0406: item 37 = 1), Call Timer starts automatically after the user places a Trunk Line call. Disabling the Trunk Line name seize display (Program 0406: Item 37 = 0) also disables the Call Timer.

Automatic Handsfree (One-touch line key access)

With Automatic Handsfree (One-touch) (Program 0401: Item 6 = 1), an extension user can press a line key to place a Trunk Line call without first lifting the handset or pressing SPK. Users without Automatic Handsfree (Pre-selection) (Program 0401: Item6= 0) can preselect a line key before lifting the handset or pressing SPK.

Programmable Function Key

Line keys and Trunk line group keys simplify placing outside calls.

Operation

<Key Telephone>

To place a call over a specific Trunk Line:

1. Press idle line key (PGM 1006 or SC 851: 0001 to 0052).
2. Dial telephone number.

OR

1. Press idle CL key and dial 805( ).
2. Dial line number (e.g., 005 for line 5).
3. Dial telephone number.

Trunk Outgoing Call (Cont'd)

Operation (Cont'd)

<Key Telephone> (Cont'd)

To place a call over a Trunk Line group:

1. Press Trunk Line group key
   (PGM 1006 or SC 851: 1012 + 1-9 or 01-16).
2. Dial telephone number.

OR

1. Press idle CL key and dial 804( ).
2. Dial line group number (1-9 or 01-16).
3. Dial telephone number.

To place a call using Trunk Line Group Routing:

1. Press idle CL key and dial 9( ) [Trunk Line Group Routing Code].
2. Dial telephone number.

OR

1. Press Outgoing Line Access key (PGM 1006 or SC 851: 101l).
2. Dial telephone number.

To place a call using Off Hook Automatic Trunk Line Group Routing:

1. Off hook.
2. Dial telephone number.

To place a call using Individual Trunk Line Group Routing

1. Press idle CL key.
2. Dial Individual Trunk Line Group Routing code.
3. Dial telephone number.

<Single Line Telephone>

To place a call over a specific Trunk Line:

1. Off hook and dial 805( ).
2. Dial line number (e.g., 005 for line 5).
3. Dial telephone number.

To place a call over a Trunk Line group:

1. Off hook and dial 804( ).
2. Dial line group number (1-9 or 01-16)
3. Dial telephone number.

Trunk Outgoing Call (Cont'd)

Operation (Cont'd)

<Single Line Telephone> (Cont’d)

To place a call using Trunk Line Group Routing:

1. Off hook and dial 9( ) [Trunk Line Group Routing Code].
2. Dial telephone number.

To place a call using Off Hook Automatic Trunk Line Group Routing:

(When this feature setting, this telephone can not used normal intercom call and another features.)

1. Off hook.
2. Dial telephone number.

Trunk Port Disable

Description

Trunk Port Disable lets a user disables for each trunk all extension user place outgoing trunk calls. For example, when a trunk have trouble, a trunk caller place trouble trunk by Trunk Line Group Access or Trunk Line Group Routing. At this time, Trunk Port Disable setting to trouble trunk, a user can be place non-trouble trunk by automatic avoiding for trouble trunk.

Conditions

This feature available for key telephone and single line telephone.

Default Setting

- Service Code for Trunk Port Disable is dial 745.
- An extension's Class of Service does not permit it to be used Trunk Port Disable.

Options

None

Programming

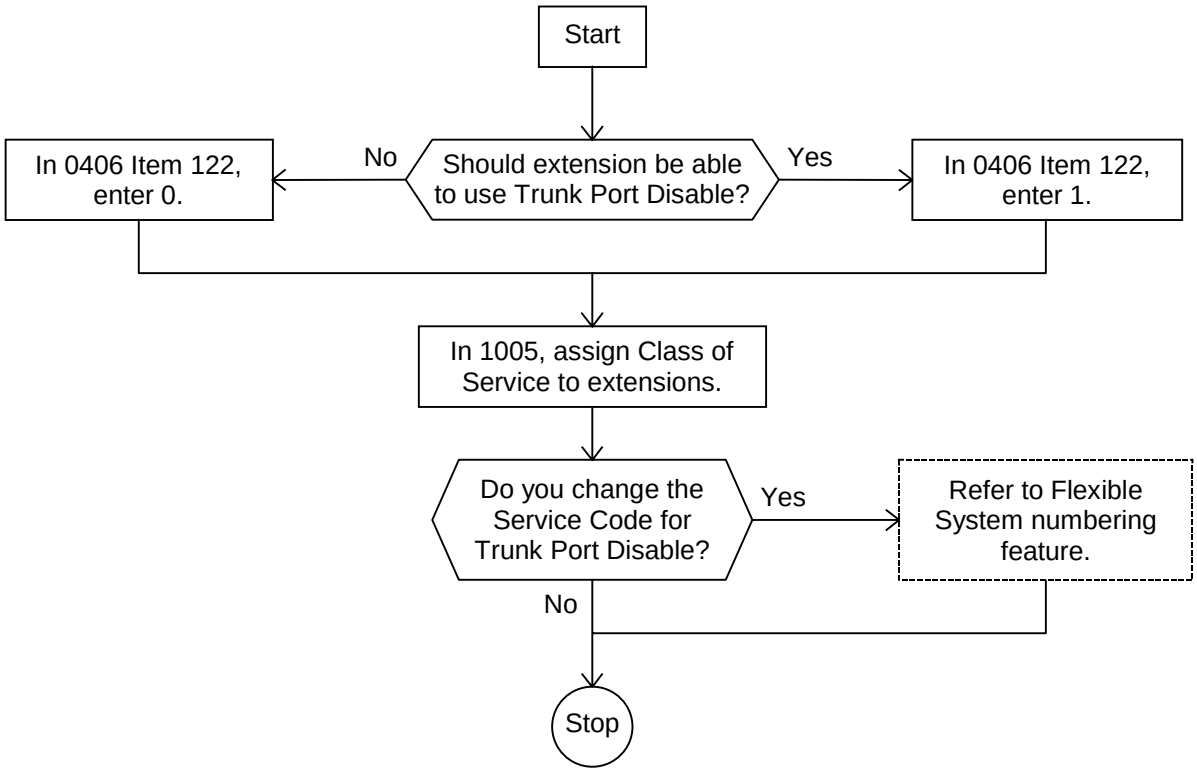
> 0406 – Class of Service Options, Item 122: Dial Block
  In an extension's Class of Service, enable (1) or disable (0) Trunk Port Disable.
> 0514 – Service Code Setup, Part B Item 35: Trunk Port Disable
  Assign a service code for trunk port disable.
> 1005 – Class of Service for Extension
  Assign a class of service (1-10) to an extension.

Related Features

None

Trunk Port Disable (Cont'd)

Programming (Cont'd)


Start
Should extension be able to use Trunk Port Disable?
No
In 0406 Item 122, enter 0.
Yes
In 0406 Item 122, enter 1.
In 1005, assign Class of Service to extensions.
Do you change the Service Code for Trunk Port Disable?
Yes
Refer to Flexible System numbering feature.
No
Stop

Operation

<Key Telephone>

To set the Trunk Port Disable:

1. Press idle CL key.
2. Dial 745( ).
3. Dial disabling trunk port number (01-52).
4. Dial 1.

To release the Trunk Port Disable:

1. Press idle CL key.
2. Dial 745( ).
3. Dial disabled trunk port number (01-52).
4. Dial 0.

Unsupervised Conference

Description

Unsupervised Conference (Trunk to Trunk) allows an extension user to establish the special conference for two outside parties without any extension user. There are 3 types of operation in dX-Z Series. For the feature availability, refer to the following table.

- Operation 1 (OP1) : Automatic On-Hook Transfer
- Operation 2 (OP2) : use "TRFR" key
- Operation 3 (OP3) : from Conference mode

Note : For the details of each operation, refer to the "Operation" part.

< Important Notice for Analogue to Analogue Conference>

If "busy tone detection" is not programmed for "Analogue to Analogue", then the extension user who made "Unsupervised Conference" should check the line condition by joining to the conference time by time. (For the operation, refer to "Operation" part.)

However, if "busy tone detection" is programmed, then the above operation is not necessary. *(Refer to command 0921-Item10)*

< Important Notice for Program Setting>

In order to provide "Unsupervised Conference" feature on Analogue trunk, command 0901-Item31 must be set to "1" for the trunk.

(Case 1) <Incoming & Incoming>

1st Line	2nd Line				
Incoming Line	Incoming Line	OP 1	OP2	OP3	SLT
Analogue	Analogue	No	No	No	No
Analogue	E&M	Yes	Yes	No	No
Analogue	ISDN	Yes	Yes	No	No
E&M	Analogue	Yes	Yes	No	No
E&M	E&M	Yes	Yes	No	No
E&M	ISDN	Yes	Yes	No	No
ISDN	Analogue	Yes	Yes	No	No
ISDN	E&M	Yes	Yes	No	No
ISDN	ISDN	Yes	Yes	No	No

Note 1 : "Conference" feature is not available on the above condition.

Note 2 : SLT user can not answer to 2nd Line while talking with 1st Line.

Unsupervised Conference (Cont'd)

Description (Cont'd)

(Case 2) <Incoming & Outgoing>

1st Line	2nd Line				
Incoming Line	Outgoing Line	OP 1	OP2	OP3	SLT
Analogue	Analogue	No	No	Yes	No
Analogue	E&M	Yes	Yes	Yes	Yes
Analogue	ISDN	Yes	Yes	Yes	Yes
E&M	Analogue	Yes	Yes	Yes	Yes
E&M	E&M	Yes	Yes	Yes	Yes
E&M	ISDN	Yes	Yes	Yes	Yes
ISDN	Analogue	Yes	Yes	Yes	Yes
ISDN	E&M	Yes	Yes	Yes	Yes
ISDN	ISDN	Yes	Yes	Yes	Yes

(Case 3) <Outgoing & Incoming>

1st Line	2nd Line				
Outgoing Line	Incoming Line	OP 1	OP2	OP3	SLT
Analogue	Analogue	No	No	No	No
Analogue	E&M	Yes	Yes	No	No
Analogue	ISDN	Yes	Yes	No	No
E&M	Analogue	Yes	Yes	No	No
E&M	E&M	Yes	Yes	No	No
E&M	ISDN	Yes	Yes	No	No
ISDN	Analogue	Yes	Yes	No	No
ISDN	E&M	Yes	Yes	No	No
ISDN	ISDN	Yes	Yes	No	No

Note 1 : "Conference" feature is not available on the above condition.

Note 2 : SLT user can not answer to 2nd Line while talking with 1st Line.

Unsupervised Conference (Cont'd)

(Case 4) <Outgoing & Outgoing>

1st Line Outgoing Line	2nd Line Outgoing Line	OP 1	OP2	OP3	SLT
Analogue	Analogue	No	No	Yes	No
Analogue	E&M	Yes	Yes	Yes	Yes
Analogue	ISDN	Yes	Yes	Yes	Yes
E&M	Analogue	Yes	Yes	Yes	Yes
E&M	E&M	Yes	Yes	Yes	Yes
E&M	ISDN	Yes	Yes	Yes	Yes
ISDN	Analogue	Yes	Yes	Yes	Yes
ISDN	E&M	Yes	Yes	Yes	Yes
ISDN	ISDN	Yes	Yes	Yes	Yes

Condition

- This feature is available for Key Telephone and Single Line Telephone.

Default Setting

- "Automatic On-Hook Transfer" feature is provided for Key Telephone.

Option (Required Items)

None

Programming

> 0116 – DTMF and Dial Tone Detection Setup: (Item19 - Item32 for Tone type2)
If 0921-Item10 is set to 0 (for BT detection ON), then enter appropriate data of your exchange busy tone.

> 0406 : Class of Service Options Item 16 : Conference
In extension's Class of Service, enable (1) or disable (0) for the "Conference".

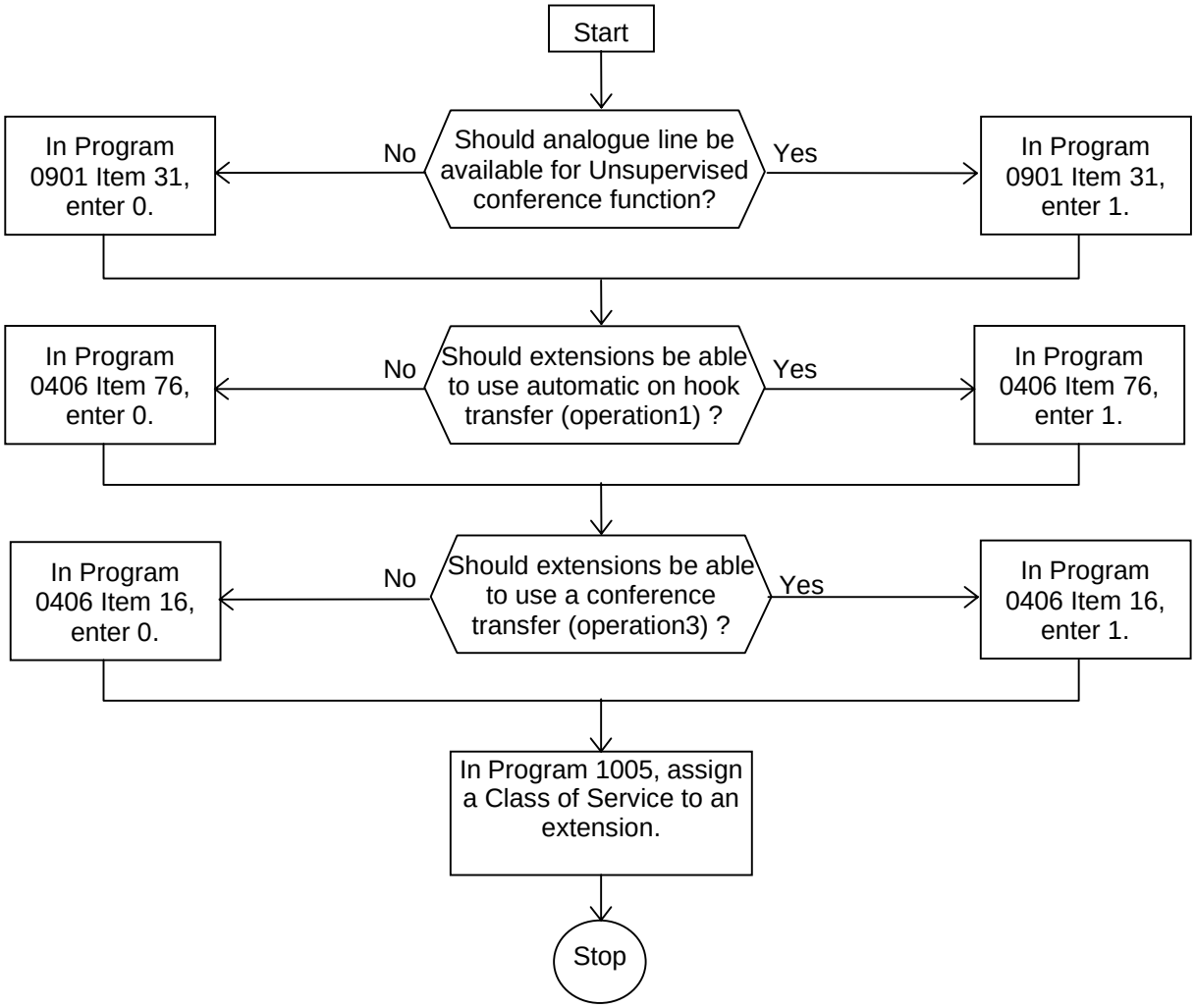
> 0406 : Class of Service Options Item 76 : Automatic on-hook transfer
In extension's Class of Service, enable (1) or disable (0) for the "Automatic On-Hook Transfer".

> 0901 : Basic Exchange Line Port Setup, Part A Item 31 : Line Loop Detection
In case of Analogue exchange line is used for this feature, data "1" should be set.

> 0921 – Basic Trunk Port Setup, Part B : Item10 Busy Tone Detection
Enable (0) or disable (1) for busy tone detection for cutting off the paths

Unsupervised Conference (Cont'd)

Programming (Cont'd)


Start
Should analogue line be available for Unsupervised conference function?
No
In Program 0901 Item 31, enter 0.
Yes
In Program 0901 Item 31, enter 1.
Should extensions be able to use automatic on hook transfer (operation1) ?
No
In Program 0406 Item 76, enter 0.
Yes
In Program 0406 Item 76, enter 1.
Should extensions be able to use a conference transfer (operation3) ?
No
In Program 0406 Item 16, enter 0.
Yes
In Program 0406 Item 16, enter 1.
In Program 1005, assign a Class of Service to an extension.
Stop

Unsupervised Conference (Cont'd)

Related Features

Conference

Conference should be activated in case that "Operation 3(OP3)" (from Conference mode) is used.

Operation

<Key Telephone>

Operation 1 : Automatic On-Hook Transfer

1. Conversation with 1st Line.
2. Put 1st Line on hold.
3. Seize 2nd Line. (answer to 2nd Line or place outgoing call)
4. Conversation with 2nd Line.
5. Go on-hook.
   1st and 2nd Lines shall be connected. BLF Lamp of both Line keys lights in red.

Operation 2 : use "TRFR" key

1. Conversation with 1st Line.
2. Put 1st Line on hold.
3. Seize 2nd Line. (answer to 2nd Line or place outgoing call)
4. Conversation with 2nd Line.
5. Press "TRFR".
   1st and 2nd Lines shall be connected. BLF Lamp of both Line keys lights in red.
6. Go on-hook.

Note : If Command 0402, Item 2 is set to "2", the above operation is not activated.

Operation 3 : from Conference mode

1. Conversation with 1st and 2nd Line. (3-party Conference)
2. Press "TRFR".
   1st and 2nd Lines shall be connected. BLF Lamp of both Line keys lights in green.
3. Go on-hook.

Unsupervised Conference (Cont'd)

Operation (Cont'd)

<Key Telephone> (Cont'd)

To release the Unsupervised Conference in case of Analogue to Analogue Conference *(only in case of "Busy Tone Detection" is not programmed)*

1. Press one of the Line key which lights in green.
2. Listen the talk status. (still making conversation or already finished)
3. If both Lines are making conversation, press "TRFR" to go on-hook. (Unsupervised Conference shall be continued.)

OR

3. If both Lines are already finished conversation (Busy Tone is heard), then go on-hook to finish the Unsupervised Conference mode.

<Single Line Telephone>

1. Conversation with 1st Line.
2. Tap hook switch for hold 1st Line.
3. Seize 2nd Line then place outgoing call.
4. Conversation with 2nd Line.
5. Go on-hook. → *1st and 2nd Lines shall be connected.*

VAU Fixed Message (VAU)

Description

VAU Fixed Message gives extension users to listen the Operation Guidance in English. For Example, "The number you have dialed is not in service", "Vacant number", "All lines are busy, for callback dial XXXX", and etc. (XXXX is service code for Camp an/Call back feature.)

Conditions

This feature is available for key telephone, single line telephone and DUD/DISA caller.

Default Setting

- VAU fixed message is provided (if VAU installation is acknowledged)

Options

DX2E-VAU-A

DX2E-VAU-B (optional)

Programming

> 0401 – System Options, Part A, Item 31: VAU fixed message
Set the use (0) or not use (1) VAU fixed message for VAU features.
When you set to not use (1), you can not use VAU fixed Message features.

Related Features

None

Operation

None

Virtual Extension

Description

Virtual Extension lets a keyset have more than one extension number. Calls can route to the keyset's installed number or to the keyset's Virtual Extension key. This helps users identify incoming calls.

There are two examples for easy reference.

An extension installed at 204 (Sales) could have a virtual extension for 460 (Service) on the one of function key. Calls to 204 ring the extension normally. Calls to 460 ring the Virtual Extension key. This lets the user at extension 204 differentiate Sales calls from Service calls.

Extensions 205, 206 and 207 in Account group could have virtual extension number 470 on the one of function key on the each keyset. Calls to 205, 206 and 207 ring to each extension individually. Calls to 470 ring the Virtual Extension key on the three keysets simultaneously. It seems to be main (pilot) number 470 for Account group.

Conditions

(A) More than one extension can share the same Virtual Extension Number.

(B) An extension can have more than one Virtual Extension Number (limited only by the number of available function keys).

Default Setting

- No virtual extensions assigned (i.e., virtual extensions do not have extension numbers or names).
- Virtual Extension keys not assigned.

Options

None

Programming

> 0502 – Extension Numbers and Names
Assign extension numbers and names to virtual extensions (ports 73-96).

> 1006 – Programming Function Keys
Assign function keys for Virtual Extension (code 1036 + extension number).

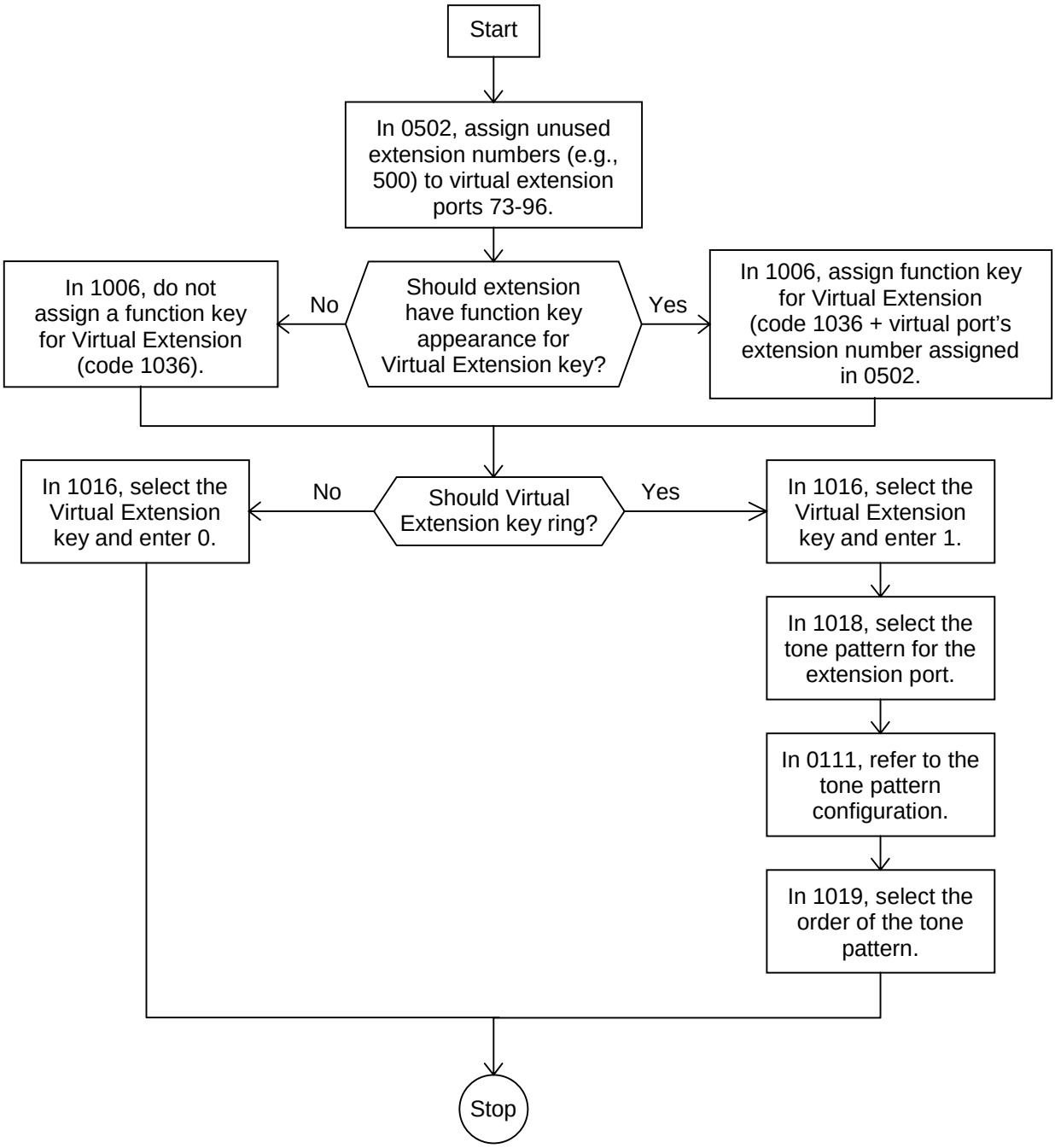
> 1016 – Virtual Extension Ring Assignment
Set ringing for an extension's Virtual Extension keys.

> 1018 – Incoming Virtual Extension Ring Tone Setup
Set ring tone for an extension's Virtual Extension.

> 1019 – Incoming Virtual Extension Ring Tone Order Setup
Set ringing for an extension's Virtual Extension keys.

Virtual Extension (Cont'd)

Programming (Cont'd)


Start
In 0502, assign unused extension numbers (e.g., 500) to virtual extension ports 73-96.
Should extension have function key appearance for Virtual Extension key?
No
In 1006, do not assign a function key for Virtual Extension (code 1036).
Yes
In 1006, assign function key for Virtual Extension (code 1036 + virtual port's extension number assigned in 0502.
Should Virtual Extension key ring?
No
In 1016, select the Virtual Extension key and enter 0.
Yes
In 1016, select the Virtual Extension key and enter 1.
In 1018, select the tone pattern for the extension port.
In 0111, refer to the tone pattern configuration.
In 1019, select the order of the tone pattern.
Stop

Virtual Extension (Cont'd)

Related Features

Class of Service

Class of Service options apply to Virtual Extension Appearances.

Department Calling

Virtual Extension Appearances can be in Department Calling Groups.

Group Call Pickup

Virtual Extension Appearances can be in Call Pickup Groups.

Toll Restriction

The system restricts calls made from Virtual Extension Appearance keys.

Operation

<Key Telephone>

To answer a call ringing a Virtual Extension number:

1. Lift handset.
2. Press flashing Virtual Extension key.

To place a call to a Virtual Extension Number:

1. Press idle CL key.
2. Dial Virtual Extension number.

<Single Line Telephone>

To answer a call ringing a Virtual Extension number:

This feature only available for key telephone.

To place a call to a Virtual Extension Number:

1. Off hook.
2. Dial Virtual Extension number.

Voice Mail Box (Box-type / Slot-type)

Description

The system provides the connectivity of proprietary voice mail. In the first release, box type of voice mail called DX2E-VM-A/C had been offered. The unit shall be connected to a digital station port. (However, the production had been discontinued already.)

In the 2nd release, slot type of voice mail called DX2E-PVMU-S1 has been offered. The unit shall be inserted into the main equipment

For the functions and operation procedures of previous box-type DX2E-VM-A/C, refer to HOW TO USE VOICE MAIL BOX (Concise User Guide).

Following functions are added on the DX2E-PVMU-S1 newly:

- Maximum Recording Capacity Selection

The maximum recording capacity can be selected (15 hours or 30 hours) by programming. It shall be defined depend on the ADPCM type for Hard Disk.

- Automatic Erasing for Left Message

The left messages can automatically be erased in accordance with programming. This programming can be set for Day base.

- Recording Restriction

Nobody can leave a message to the assigned Mail Box. This feature can be set / canceled by each extension user.

- Left Messages Displaying (only Large Display Key Telephone user)

The Large Display Key Telephone user can select whether left messages are displayed / replayed from old message or new message.

- Skip (only Large Display Key Telephone user)

During replaying the left message, the Large Display Key Telephone user can skip it by pressing “SKIP” key. And also, “BACK SKIP” key is provided. The Skip Duration Time can be set at each Large Display Key Telephone. (8 / 16 / 24 / 32 / 40 seconds)

- Escape from Voice Mail Box

In case the outside caller entered to the Voice Mail Box Service through DUD / DISA, DIL or DDI, the outside caller can escape from VMB Service to DUD mode by dialing the Service Code (50#).

This function is available in case :-

- the outside caller entered to the Voice Mail Service by dialing VMB extension No.
- the outside caller is recording the message on Automated Attendant for the System mode.
- the outside caller is recording the message on Automated Attendant for the Extension mode.

After escaping to DUD mode, the outside caller should operate in accordance with usual DUD feature. The Talkie (Answering Machine, VAU, etc...) is also work same like usual DUD feature.

Voice Mail Box (Box-type / Slot-type) (Cont'd)

Description (Cont'd)

- Escape from Voice Mail Box (Cont'd)

In case the outside caller entered to the VMB Service through E&M Tie Line and dials the Service Code (50#) to escape from VMB, the outside caller can return to the "Extension Dialing Mode" instead of DUD mode.

In Addition, in case the outside caller entered to the VMB Service through DDI Line, then another Service Code (51#) can be used to escape from VMB, and shall be transferred to specified destination in accordance with DDI Transfer function.

The details of Specification for Slot-type Voice Mail are as below:-

- Maximum Recording Capacity	: 15 hours (32K bps) 30 hours (16K bps)
- Voice Channel	: 4 channels
- Maximum Number of Mail Box	: 300
- Maximum Number of Message	: 4000

Note 1 : The maximum recording time can be set (32K bps or 16K bps) by Programming.

Note 2 : Card Type Voice Mail can not be installed together with previous Voice Mail Box. (DX2E-VM-A / C)

Conditions

Key Telephone, Single Line Telephone and Outside Caller

Default Setting

- Voice Mail is not defined
  (after Voice Mail definition)
- ADPCM type is 32K bps (15 hours)
- Maintenance Time is not set
- Automatic Message Erasing is not set

Option

DX2E-PVMU-S1

Voice Mail Box (Box-type / Slot-type) (Cont'd)

Programming

(Following 3 programs have to be entered for Voice Mail.)

> 0509 – Voice Mail Group Pilot Number

Assign the access number for Voice Mail.

> 1407 – Mail Box Setup

Setup mail box number and password for each extension use.

> 1409 – Setting Master / Slave Voice Mail

Assign Master and Slave Voice Mail. In case of Slot-type VM, "the slot No. + 1000" (e.g. slot 4 : 1004) shall be entered instead of the extension port..

(Following 3 programs are related to the optional functions on Slot-type voice mail)

> 1417 – Maintenance Time Setting for PVMU

Assign the Time (Hour : Minutes) for VM maintenance. When this time comes, VM shall stop about 1 minute and the system shall check the contents of Hard Disk. If Automatic Erasing is activated in Command 1419, the applicable messages shall automatically be erased at this time.

> 1418 – ADPCM Selection (Maximum Recording Time)

Assign the ADPCM type (0: 32K bps, 1: 16K bps). This assignment shall relate to the maximum recording time.

> 1419 – Automatic Message Erasing Setup

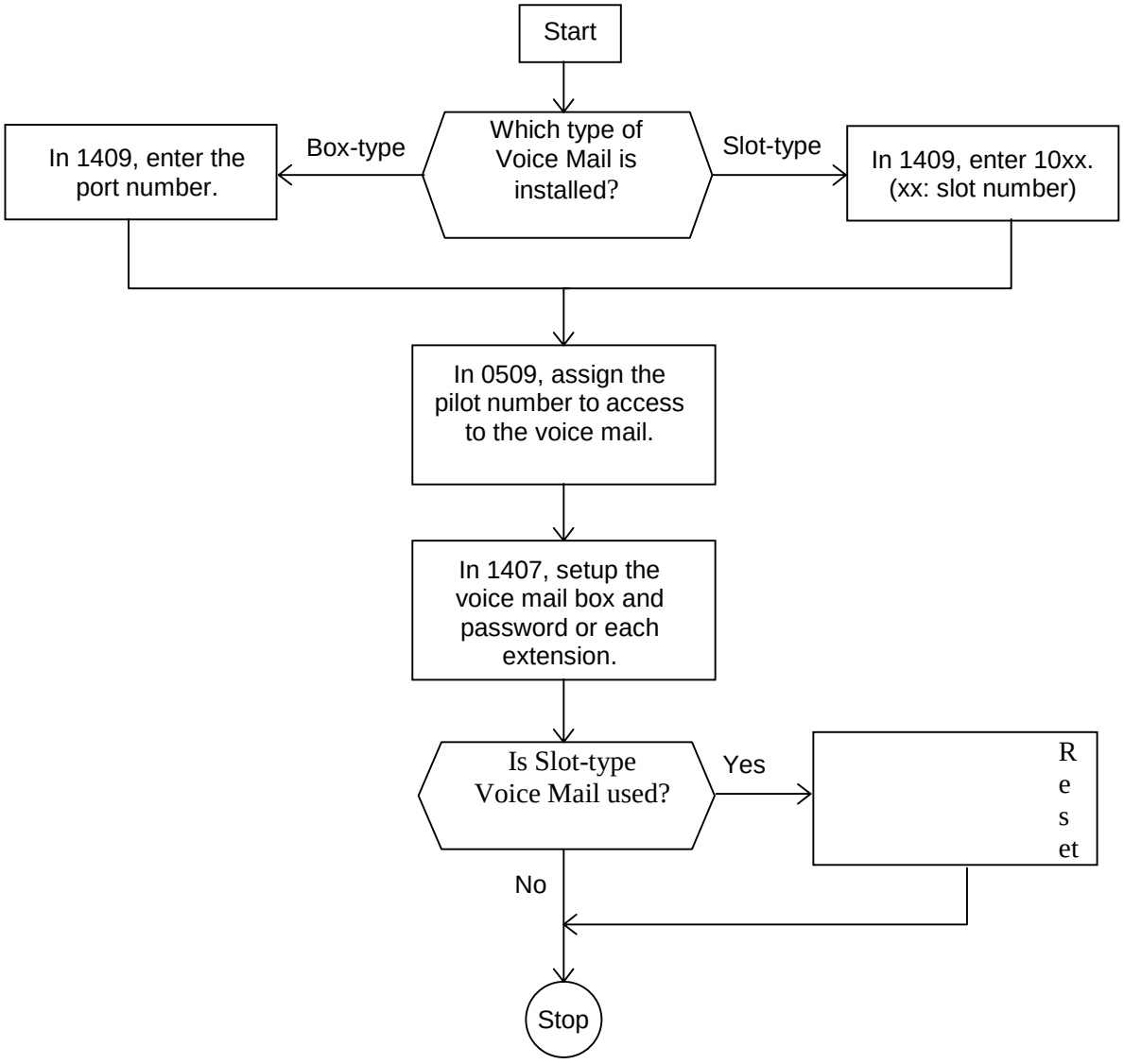
Assign the length of days for automatic erasing. After the assigned day(s) have been passed, all left messages shall automatically be erased. For this activation, Command 1417 has to be set to "1: Service On".

(Following programs are to be used for the optional setting of VM)

> 1403 - Voice Mail Options
> 1404 - Message Recording (Leave Message) Setup
> 1405 - Call Information (Mail Forward Service) Setup
> 1406 - Voice Mail System Password Setup
> 1408 - Voice Mail Feature Data Initialize
> 1410 - Delayed Automated Attendant Setup
> 1411 - Incoming Call Mode Setup (Voice Mail)
> 1413 - Voice Mail Multiple Address Abbreviated Code Setup
> 1414 - Voice Mail Multiple Address Abbreviated Name Setup

Voice Mail Box (Box-type / Slot-type) (Cont'd)

Programming (Cont'd)


Start
Which type of Voice Mail is installed?
Box-type
Slot-type
In 1409, enter the port number.
In 1409, enter 10xx. (xx: slot number)
In 0509, assign the pilot number to access to the voice mail.
In 1407, setup the voice mail box and password or each extension.
Is Slot-type Voice Mail used?
Yes
No
Reset
Stop

** For the optional settings, refer to program manual.*

Voice Mail Box (Box-type / Slot-type) (Cont'd)

Operation

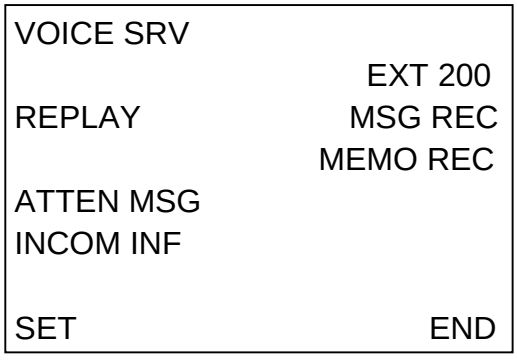
<Note> Hereafter, the functions described are only available by using of slot-type voice mail. Basic functionality are referred to HOW TO USE VOICE MAIL BOX (Concise User Guide)

To set / cancel the Recording Restriction :

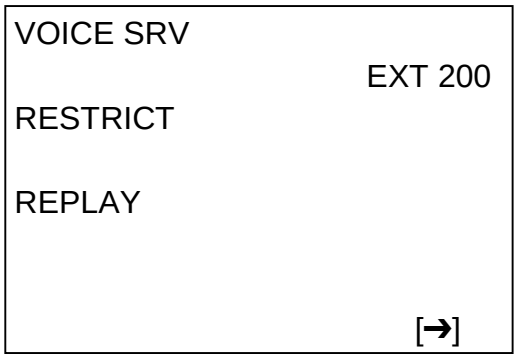
<Key Telephone & Single Line Telephone>

1. Access to the Voice Mail Service.
2. Dial 66# to set / cancel.
3. Hang up.

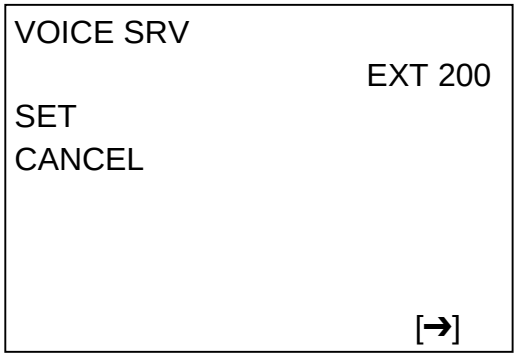
<Large Display Key Telephone>



1. Access to the Voice Mail Service.
   (Press Mail Box and dial Password.)
2. Press "SET" key.



3. Press "RESTRICT" key.

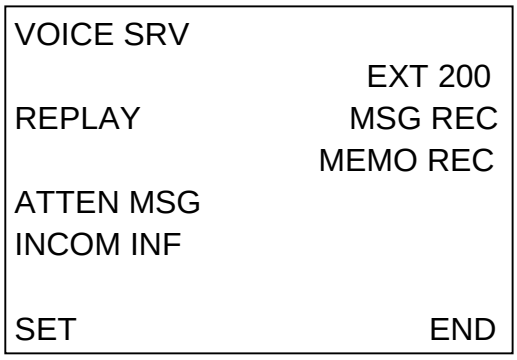


4. Press "SET" or "CANCEL" key.
(Confirmation Message shall be displayed.)

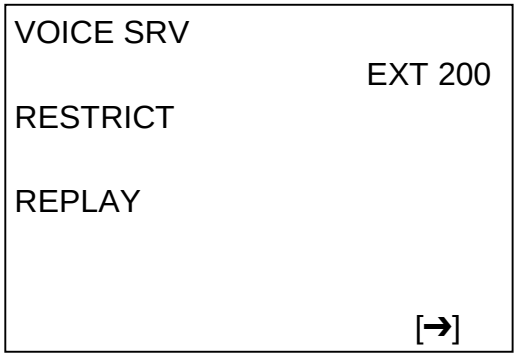
Voice Mail Box (Box-type / Slot-type) (Cont'd)

Operation (Cont'd)

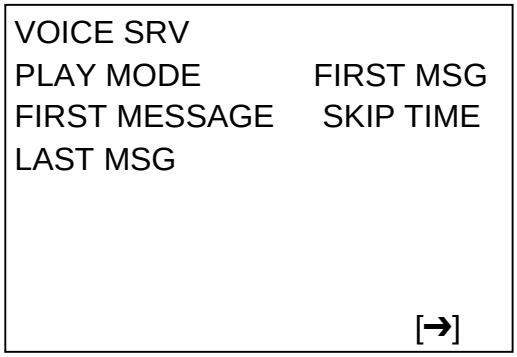
To set displaying order:



1. Access to the Voice Mail Service.
   (Press Mail Box and dial Password.)
2. Press "SET" key.



3. Press "REPLAY" key.

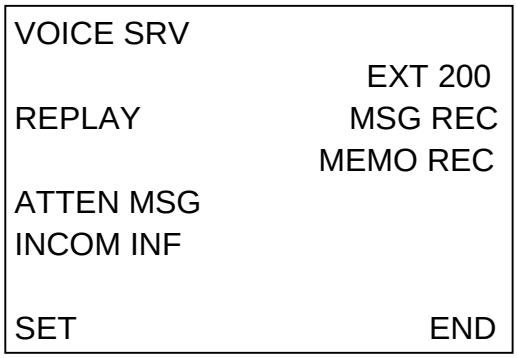


4. Press "FIRST MSG" or "LAST MSG" key.
   (Confirmation Message shall be displayed.)

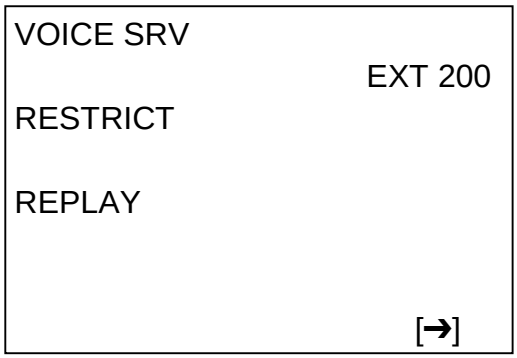
Voice Mail Box (Box-type / Slot-type) (Cont'd)

Operation (Cont'd)

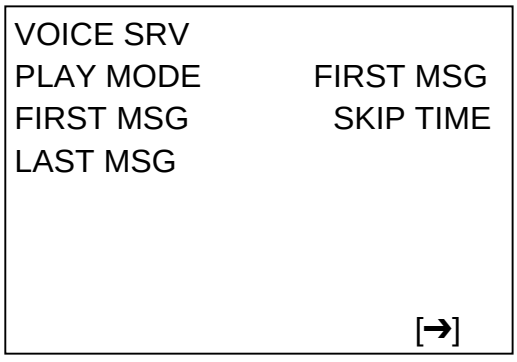
To set the SKIP Time:



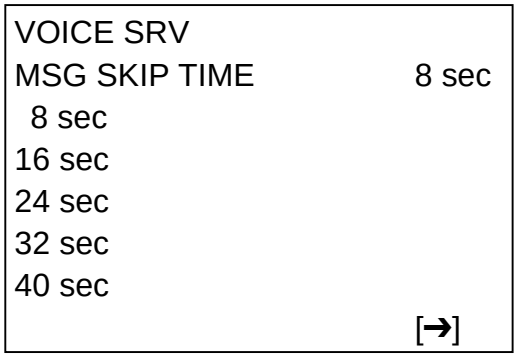
1. Access to the Voice Mail Service.
   (Press Mail Box and dial Password.)
2. Press "SET" key.



3. Press "REPLAY" key.



4. Press "SKIP TIME" key.

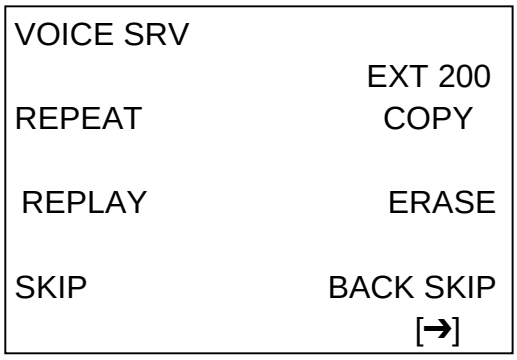


5. Press the desired time.
(Confirmation Message shall be displayed.)

Voice Mail Box (Box-type / Slot-type) (Cont'd)

Operation (Cont'd)

To use the Skip during replaying the left message:



(During replaying the left message)
1. Press "SKIP" or "BACK SKIP" key.

To escape from VMB Service:

1. Enter to the VMB Service from outside.
2. Dial "50#" during recording mode or Service Code entering mode.
(Unique Dial Tone or Greeting Message shall be heard.)
3. Follow DUD operation.

If outside caller comes through DDI Line :

1. Enter to the VMB Service from outside.
2. Dial "51#" during recording mode or Service Code entering mode.
3. The call shall be forwarded to specified destination according to the system setting of DDI Transfer.

Voice Over

Description

When a user makes intercom to an extension busy on a call, he/she can perform Voice Over indicating he/she has something to talk to. This is one of “Override” functionality that is not cut in to the established conversation on the handset, but to send his/her voice to the speaker of keyphone.

<Note> By the same operation procedure, but it may send the ring to the speaker of keyphone. This is because CDHF-A is not installed in the keyphone at the called side. The functionality is described as “Intercom Off-hook Signaling” in this issue.

The system provides the following “Voice Over” options:

- **Called Extension Block**

  The called extension's Class of Service may block incoming Voice Over attempts. This is beneficial to users that don't want to have interruptions while on a call.

- **Automatic Voice Over**

  Calling a busy extension automatically initiates Voice Over. This option is set in the calling extension's Class of Service.

- **Manual Voice Over**

  When the above option is not set, then system provides this option. In case of reaching to a busy extension, the caller can dial service code or press function key to perform Voice Over to the called keyphone manually.

- **Prefer Off-hook Signaling at the keyphone with CDHF-A**

  If the keyphone (with CDHF-A) user sets this mode by service code, called mode shall be changed to Off-hook Signaling, not Voice Over.

Conditions

The Voice Over call is available for key telephone and single line telephone.

The called keyphone has to be installed CDHF-A inside.

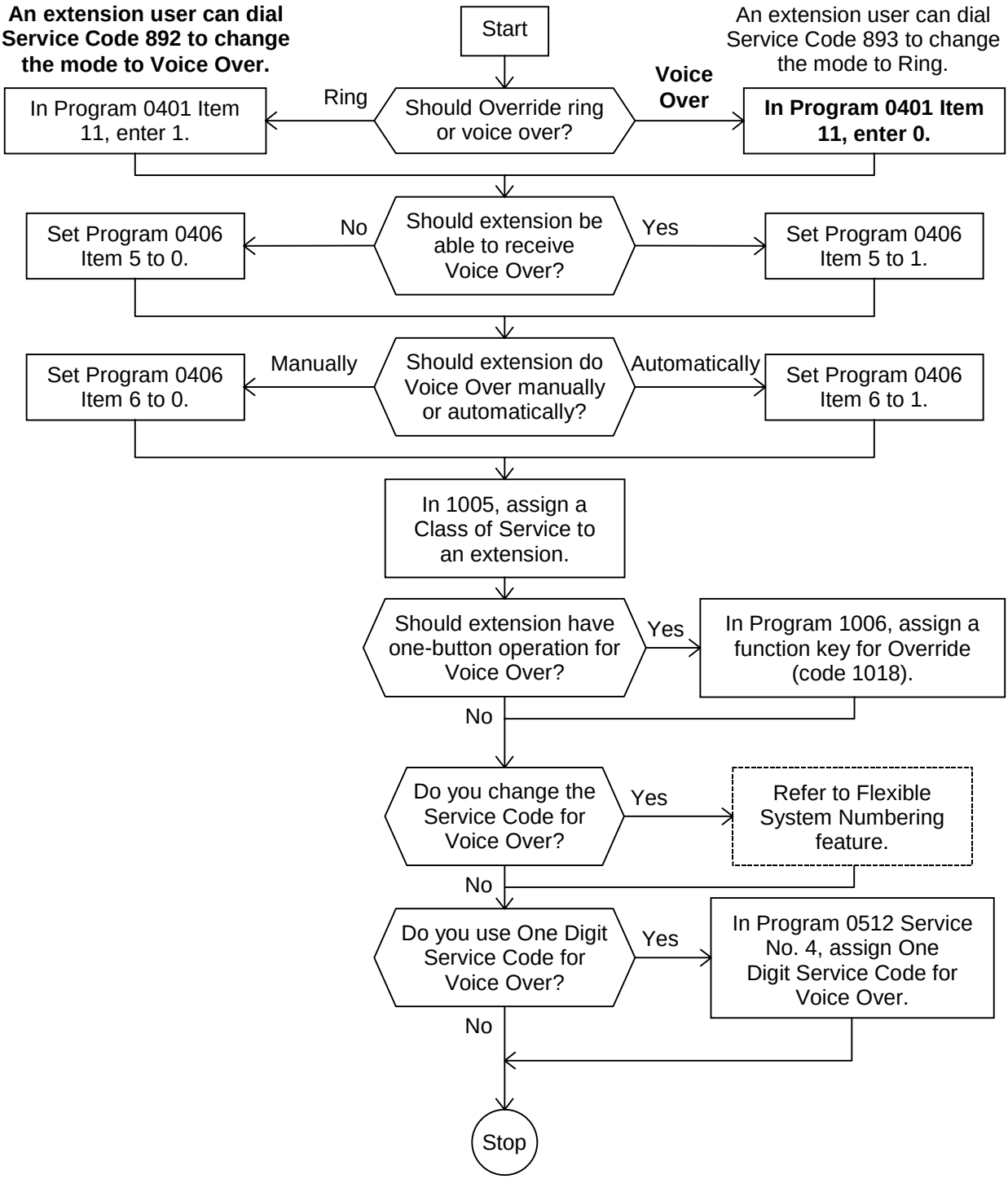
<Note> If your keyphone is 1st generation type , then the Voice Over function can be performed without any option except following types:-
DX2E-16T-LC2 TEL, DX2E-16TXH-LC2 TEL

Default Setting

- An extension's COS allows it to receive Voice Over.
- An extension's COS prevents it from automatically sending Voice Over.
- Service code for Voice Over is dial 809.
- Service code for setting of forced Voice Over is dial 892.
- Service code for setting of forced Off-hook Signaling is dial 893.
- One digit service code for Voice Over is no setting.

Voice Over (Cont'd)

Programming


An extension user can dial Service Code 892 to change the mode to Voice Over.
Start
An extension user can dial Service Code 893 to change the mode to Ring.
Ring
Should Override ring or voice over?
Voice Over
In Program 0401 Item 11, enter 1.
In Program 0401 Item 11, enter 0.
No
Should extension be able to receive Voice Over?
Yes
Set Program 0406 Item 5 to 0.
Set Program 0406 Item 5 to 1.
Manually
Should extension do Voice Over manually or automatically?
Automatically
Set Program 0406 Item 6 to 0.
Set Program 0406 Item 6 to 1.
In 1005, assign a Class of Service to an extension.
Should extension have one-button operation for Voice Over?
Yes
In Program 1006, assign a function key for Override (code 1018).
No
Do you change the Service Code for Voice Over?
Yes
Refer to Flexible System Numbering feature.
No
Do you use One Digit Service Code for Voice Over?
Yes
In Program 0512 Service No. 4, assign One Digit Service Code for Voice Over.
No
Stop

Voice Over (Cont'd)

Programming (Cont'd)

> 0401 – System Options, Part A, Item 11: Called mode setting for override.
Enter 1 to have off-hook signal ring at the called busy extension.
Enter 0 to have Voice Over to the called busy extension. An extension user can override these settings by dialing Service Code 892 (for voice over) or 893 (for off-hook signal).

> 0406 – COS Options, Item 5: Override
In an extension's Class of Service, enable (1) or disable (0) the extension's ability to automatically send override call.

> 0406 – COS Options, Item 6: Automatic Override
In an extension's Class of Service, enable (1) or disable (0) the extension's ability to automatically send override call to an extension busy on a handset call.

> 0511 – Service Code Setup, Item 15: Override
Assign a service code for Override.

> 0511 – Service Code Setup, Part A
Item 83: Setting of signal called for override
Assign a service code for setting of signal called override.

> 0511 – Service Code Setup, Part A
Item 82: Setting of Voice Over called for override
Assign a service code for setting of voice-announce called for override.

> 0512 – One Digit Service Code Setup, Service No. 4: Override
Assign one digit service code for override.

> 1005 – Class of Service for Extension
Assign a Class of Service (1-10) to an extension.

> 1006 – Programming Function Keys
Assign a function key for override (code 1018).

Options

DX2E-CDHF-A

Related Features

Call Waiting/Camp On and Callback

An extension user cannot Camp On to a busy extension or leave a Callback if Override has already gone through.

Handsfree (Speaker & Microphone)

You cannot send override to an extension busy on a Handsfree (Speakerphone) call.

The called extension's idle CL key flashes fast, with no ringing.

Voice Over (Cont'd)

Operation

<Key Telephone>

To place Voice Over to an extension busy on a handset call:

2. Call to busy keyphone.
   You hear busy tone
2. Dial 809( ).
   OR
   Press Override key (PGM 1006 or SC 851: 1018).
   OR
   Dial one digit service code for override( ).
   You hear ring-back tone
   To change your call to signal, dial 1.

To set Off-hook Signaling mode at your extension (with CDHF-A):

1. Press idle CL key.
2. Dial 893( ).to set.

To set Voice Over mode at your extension (with CDHF-A):

1. Press idle CL key.
2. Dial 892( ).to set.

<Single Line Telephone>

To place Voice Over to an extension busy on a handset call:

1. Call to busy keyphone.
   You hear busy tone.
2. Dial 809( ).
   OR
   Dial one digit service code for override( ).
   You hear ring-back tone. Dial 1 to change the mode to signal.

To set Off-hook Signaling mode at your extension:

To set Voice Over mode at your extension:

These features are only available for key telephone.

Volume Control

Description

The volume buttons (▲, ▼) are provided on each keyphone to adjust the volume level for incoming Ring, Background Music, Paging announcements, Handsfree and the handset. With Volume Controls, each keyphone user can individually set volumes to their most comfortable level.

The user can adjust their controls while on a call or when the phone is idle.

<Note> For the 1st generation type of keyphones (except LC2 type), the slide switch had been provided at the left side of the phone. In the case, incoming ring volume shall be adjusted by the switch.

Conditions

This feature available for key telephone.

Default Setting

None

Options

None

Programming

None

Related Features

None

Operation

To adjust the volume of incoming Ring, Background Music, Paging announcements, Handsfree and the handset:

1. Press VOL ▲ or VOL ▼.

   You can press the volume keys while on a call or when your phone is idle.

Walking Toll Restriction

Description

Walking Toll Restriction lets you temporally permit to make outgoing call which is originally restricted at the extension, by entering your password. Each password carries own toll restriction class. Once the system permits you to make outgoing call, continuous attempt is not accepted after terminate the first call, unless entering the password again.

Condition

- This feature is available for Key Telephone and Single Line Telephone.

Default Setting

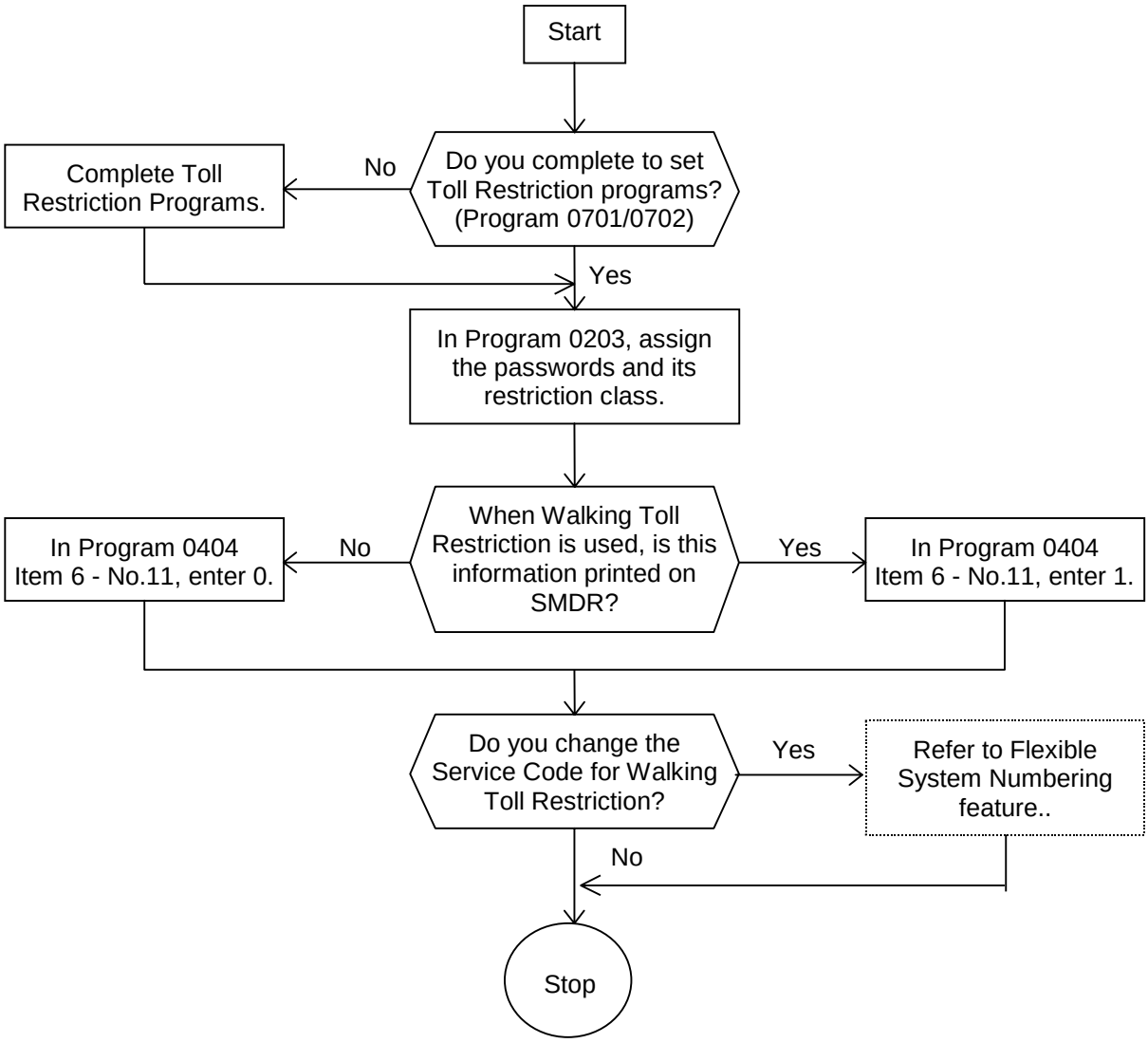
- Maximum 50 passwords can be stored to the memory.
- All passwords are not defined.
- All passwords are 6 digits fixed.
- All Toll Restriction Classes of password table are “Class 8”.
- Service Code of Walking Toll Restriction is dial 763.

Options

None

Walking Toll Restriction (Cont'd)

Programming


Start
Do you complete to set Toll Restriction programs? (Program 0701/0702)
No
Complete Toll Restriction Programs.
Yes
In Program 0203, assign the passwords and its restriction class.
When Walking Toll Restriction is used, is this information printed on SMDR?
No
In Program 0404 Item 6 - No.11, enter 0.
Yes
In Program 0404 Item 6 - No.11, enter 1.
Do you change the Service Code for Walking Toll Restriction?
Yes
Refer to Flexible System Numbering feature..
No
Stop

> 0203 – Walking Toll Restriction Password Setup

Assign the table No., Password (6 digits) and its restriction class which is defined in the Toll Restriction programs. (command 0701, 0702)

> 0404 – SMDR Options Item 6 - 11 : Walking Toll Restriction Table No.

Assign the output condition for printer / PC. If the data is set to "1" (output), the symbol of call will be printed as "POTW", and password table No. will be printed as " W/@@@" (@@@ : 3 digits table No.) at the Account Code area. (Refer to the following appendix.)

> 0514 – Service Code Setup, Part B Item 53 : Walking Toll Restriction

Assign a service code for Walking Toll Restriction.

Walking Toll Restriction (Cont'd)

Related Features

Toll Restriction

Before use the Walking Toll Restriction feature, Toll Restriction programming should be assigned.

Station Message Detail Recording (SMDR)

In case that an extension is used by other user who entered Walking Toll Restriction password, the outgoing information can be output to printer / PC.

Operation

<Key Telephone>

To place outgoing call by using Walking Toll Restriction

1. Lift handset or press idle CL key.
2. Dial 763 ( ).
3. Dial Password. (6digits fixed)

   If the dialed password is correct, dial tone shall be heard. If the dialed password is incorrect, warning tone shall be heard.
4. Seize an idle Trunk Line.
5. Dial Telephone Number.

<Single Line Telephone>

To place outgoing call by using Walking Toll Restriction

1. Lift handset.
2. Dial 763 ( ).
3. Dial Password. (6digits fixed)

   If the dialed password is correct, dial tone shall be heard. If the dialed password is incorrect, warning tone shall be heard.
4. Seize an idle Trunk Line.
5. Dial Telephone Number.

Walking Toll Restriction (Cont'd)

(Reference)

Printout Format for Walking Toll Restriction on SMDR

(example 1)

When any user places outgoing call by using Walking Toll Restriction, the call shall be printed to SMDR as follows ;

	CLASS	TIME	LINE	DURATION	STATION	DIALED No./CLI	RD/COST	ACCOUNT
01	POTW	10:10	LINE 001	00:01:10	200	0448137101	0	W/001

(example 2)

When outgoing call is restricted even through Walking Toll Restriction is performed, the call shall be printed to SMDR as follows ;

	CLASS	TIME	LINE	DURATION	STATION	DIALED No./CLI	RD/COST	ACCOUNT
01	BRD	10:10	LINE 001	00:00:00	200	009714816958	0	W/001

Manufacturer:

Nitsuko Corporation

2-6-1 KITAMIKATA, TAKATSU-KU, KAWASAKI 213-8511 JAPAN

TEL: +81-44-813-7104 FAX: +81-44-813-7300